DEVOTED TO AGRICULTURE, HORTICULTURE, AND KINDRED ARTS.

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R. P. EATON & CO., PUBLISHERS, OFFICE, 34 MERCHANTS' ROW. **MONTHLY.** SIMON BROWN, S. FLETCHER, } EDITORS.

NOVEMBER ASPECTS.

Oh, knew he but his happiness! of men
The happiest he, who far from public rage,
Deep in the vale, with a choice few retir'd,
Drinks the pure pleasure of the Rural Life.
Thomson's Seasons.

The Glooms of November.

NOVEMBER winds are chilly, and NOVEMBER skies are quite often dark and gloomy. Dead leaves drift in the breeze, and cuddle under the stone walls, as if to hide away from the merciless blast. The flowers have faded, and hang upon their withered stems in the garden, fit emblems of the progress and decay of man, whose days have been extended into old age. The air is no longer resonant with the songs of birds. They have gone to distant lands and milder skies, there to find the food they need, and to gain strength to come again to their breeding haunts, and enjoy another season of nuptial delights. Pinching frosts are on the brown herbage in the morning, and little pools in the highways are covered with a glassy surface. The crow sits on the bare tree top, cawing to his family in the wood, and in the gloomy afternoon, tired geese up in cloud-regions, *honk* to the lagging train to drop into some far-seen lake for food and a night's rest. The domestic animals gather about the yards, impatiently wating to be admitted to their accustomed byre. The afternoons are cloudy, dismal and short. Night comes quick, and shuts in the scene.

So, too many think and feel of November. Too many cherish the feeling, and give it new strength every year.

We would not say that this feeling is strange and unnatural. To the sensitive and observing mind, the general decay of vegetable matter all about us, the leafless trees, the bare fields, the absence of the birds and insect life, the cessation of a thousand pleasant sounds which animated summer life, is a change which will materially affect any reflecting mind.

All this, however, should not so disturb our feelings and views as to settle upon them a gloomy pall, and shut out the thousand pleasurable prospects and sensations which still remain. We must remember the sentiment of old Father Cotton, that,

If solid happiness we prize,
In our own breast the jewel lies,
Nor need we roam abroad.

When the "good time," so long anticipated, has come, no higher type of "peace on earth" may be found any where, than in

The well-regulated Farmer's Home.

Instead of the season bringing gloom and discontent to the mind, November clouds and storms, and decaying life, will afford such a contrast to the flush and energy of summer, as to give us a deep interest in all these changes and processes of Nature.

If the farmer compares his position with that of any other class, he will find sources of consolation and joy peculiarly his own. During the growth and the securing of his crops, there was constant labor, together with anxieties as to the results. But *now*, the harvests are completed, and enough is laid away in store for man and beast for many months to come.

In every age, this season has been attended with more rejoicing than any other. In these seasons were the feast days in Bible times, when they not only had devotional exercises, but their public thanksgivings called for expressions of joy, and acts of kindness and festivity. The Scriptures emphatically speak of the "joy of harvest."

With food and shelter and clothing, with fuel for fires, with the pleasant care of the domestic animals which are dependent upon him, and that regard for progressive knowledge which is incumbent upon the farmer, why should not his home become the abode of contentment and peace, at all seasons! He is not subject to high rents or frequent removals, as many mechanics are, but has a secure and comfortable home, conveniences in fuel, clothing and shelter, which thousands have never enjoyed; has the sweets of good society, the mental luxury of books, which introduce him to all the peoples of the earth.

To these may be added another charm, and that is the study of books which are devoted to his own business. This exercise will not only make *November* evenings instructive and delightful to himself, but will equally entertain the family around the social fire, and greatly *increase the profits of the farm*. We lose in many ways, because we do not understand the operation of laws about us, and which directly affect all our labors.

He who has not become interested in these laws has little more conception of their power and beautiful operations, than he could have of our gorgeous autumnal scenery from a mere description of it. He must see *that*, in all its infinite colors and lights and shades, in order to have any appreciative sense of its beauties,—so he must study the natural laws under which he labors to gain a living, or be never will know many of the pure delights which ought to come to the cultivator of the soil.

No one can be long discontented, or gloomy, who reads the books which treat of the breeding and growth of our domestic animals. He will soon learn the wonderful progression which has quadrupled their size, and equally increased their productive powers for labor, for milk, butter and cheese; and in sheep, for a similar increase in flesh and in the production of wool.

He will learn that many of our most valuable vegetables were once unfit for human food —such as the potato and cabbage, for instance. The former being a wild plant in the woods of America, with a small, bitter bulb at its roots, which, for a long time, was considered as poisonous; and the cabbage was another wild plant growing on cliffs near the sea coast in England. Other vegetables, now considered indispensable on our tables, have come from plants once rejected by man and beast as unwholesome and worthless.

So it has been with many of our most highly-valued fruits,—the apple, pear, peach, and plum. The great perfection which they have reached has been gained by *study* and *experiment*. Strike these articles from our list of edibles, and it would be considered as an unspeakable calamity.

It admits of a question, too, whether any course of study in the schools could so thoroughly educate the farmer's family as the study of our agricultural literature around the family fireside. That study would include, in some degree, almost every branch of knowledge which the farmer needs. Something of science and the arts, to help him in his mechanical labors; something of geography, to acquaint him with the features of the earth, and of geology, to inform him of its changes; something of natural history, to enable him to discern between friend and foe among the living organisms by which he is surrounded; something of figures, to prepare him for the mercantile duties which will devolve upon him as a buyer and seller,—and something of chemistry, to show him some of the infinite varieties of changes which the matter with which he deals is constantly assuming, and the

wonderful powers which some of them possess.

Then the moral lessons are of infinite value. We look to mother earth as the agent through which we are to receive all that affords substance and comfort, and that dignifies and ennobles our lives. This seems to lead us nearer to God, whose paternal care controls the seasons and gives the earth its increase. Thus in dark and windy November evenings, we may study and contemplate the works of Him in whom we live, and move, and have our being, and gain new power by cultivating the *mind* as well as the soil.

FARM CARES FOR NOVEMBER.

November brings wide changes in all the rural scenes about us. The merciless frost has checked the growing plants, and in every direction the lifeless leaves are drooping and passing into decay. What a change from the green and vigorous condition which they presented but a few days ago!

In their dying hours, the leaves of the trees assume the most charming changes of light and shade, and in the sunlight present a scene of transcendent beauty.

Some of the hardy plants that are able to resist the power of frost are still arrayed in living green, and afford a pleasing contrast with the sere and yellow leaves of a large portion of others.

November is a trying month to the domestic animals. The change from a green, succulent food to a harsh, dry one, is very great. They ought now to be treated with especial care. It is their nature to take their food from the face of the earth, and not to receive it through the hands of man. They will resort to the pastures or the fields, therefore, just as long as they are allowed to do so. All day long they will search for a green bite in the hollows or under the walls, and work hard for that which does them little good.

To allow them to do so is poor economy for farmers. There is no profit in it. The frost-bitten grasses have little or no nutriment, and the close grazing weakens the plants and lays bare their roots, so that they are quite likely to be winter-killed.

Cattle exposed to the storms and chilling winds of November, and working hard all day to fill themselves with grasses which have passed into a decaying state, are liable to become disordered with colds or affections of the bowels, which sometimes last them for months afterwards. They lose appetite, their eyes are dull, the hair dry and frowzy, the milk small in quantity and poor in quality, and their calves when dropped, weak and puny. It is in every way, poor economy to allow the stock to range the fields in November.

The contrast, however, between the open fields and the close lean-to is a wide one. Cattle at first are impatient of the restraint, and should be indulged, two or three times each day, with liberty to stretch themselves in the yard, and lie down or stand up as they please. Bring them to their new condition of confinement gradually.

If taken from the pasture or fields at a proper time, and gradually fed with both dry and succulent food, they will retain appetite and continue in a thrifty condition through the winter.

How to Save Fuel.—It is important to the health and comfort of the family that the whole house shall be kept, as near as is possible, in an even degree of warmth. If it can be afforded, every room in the house should be so; but as that cannot be the case in all instances, every care should be observed to prevent the entrance of wind from outside. If crevices are open around a room, as the room is warmed, the air from the outside rushes in with renewed force, and it becomes next to impossible to keep up a comfortable and equal degree of warmth.

In order to secure something of this equality, the first thing is to make all tight about the foundation of the house. This will prevent the cellar from freezing, and cold currents from rushing up through the floors. In doing this, use the branches of evergreen trees. Do not disfigure your house by piling up earth about the base boards and rotting them out; nor incur the cost of carting loads of sand, loam or gravel, and holding it against the house with boards and stakes, and then of carting all away again in the spring. But bring pine, hemlock, or spruce branches from the trees you are intending to cut down for fuel or timber, in the wood-lot, or the young evergreens which are monopolizing too much of the pasture land. Pack these closely about the underpinning, and lay some weight upon them so that they will remain in place. Your

part is then completed. December snows and winds will do the rest, by filling all the open places among the branches, so that wind and frost will not find their way where you do not want them.

In the spring, the branches may be easily put upon the bonfire heap in the garden, and their ashes give an abundant crop of cabbages or other vegetables. Will you try it?

There are many other things that may, and ought to be done in *November*, and if attended to, there will be little inclination to think of clouds or gloom, or be distracted by nightmare, or hypochondria.

Drain the wet land, if the ground is not too much frozen.

Collect *muck*, if the swamp will admit you.

Prune the trees, if they need it.

Haul off stones, if they are in the way.

Make all tight and snug about the buildings, if you would like to be comfortable when reading in the evening. Have a thoughtful care of the cattle, and the good old servants, the horses. They look to *you* for their meat in due season. Will you see that they have it?

Collect materials of every possible kind to be converted into manure.

See that the swine have dry lodgings to go to, and that the wind cannot come to them through cracks in the floor when they are lying down. Will they gain a pound per day lying upon a wet and ventilated bed?

If it storms too hard to attend to out door duties, go to the house cellar and put that in order, so as to save the women the job. Sweep the bottom, and spider webs from the walls and top. Sort over the potatoes and—ah! the *apples* are not there this year.

Clean out the wood-house and make ready the piles for winter use.

Do all these, and leave no other duties undone, and the women will love you, your children reverence you, and GOD will bless and bring you to an inheritance of glory and peace at last, of which the heart of man hath not yet conceived. And so ends our November homily.

—Geo. Kaler, of South China, brags in the *Maine Farmer* of a smart hen. In five months and three days, commencing the 25th of last March, she has hatched out and brought up three litters of chickens—thirty-nine in all—without a single addle egg, has laid thirty-three eggs, and is still doing her duty on the nest.

For the New England Farmer.

THE GARDEN IN NOVEMBER.

"The fading, many-colored woods,
Shade deep'ning over shade, the country round
Imbrown; a varied umbrage, dusk and dim,
Of every hue, from wan declining green
To sooty dark."

Many hard-working, money-making, practical men see little else in nature than that which may be turned into dollars and cents; but not so with all, even though they be farmers dependent upon their labor for their daily bread. The ever-changing seasons, as they revolve, afford food for thought and pleasing reflection; and of all seasons the fall of the year furnishes scenes of the most gorgeous and suggestive variety. These, instead of suggesting only gloomy and foreboding thought, should fill the mind with those of the most thankful, pleasing and glorious kind. And we believe that as intelligence and refinement spread among the laboring class, the beauties and suggestions of the ever-changing seasons are better enjoyed and better appreciated. Still, much of the sentiment and poetry of fervid writers fails to be realized by the every day workers either in town or country. Those who are dependent on the daily labor of their hands or heads, find less sentiment than reality in the business to which their lives are devoted. But the reader will ask what has all this to do with gardening? The main part of our active duties in the garden are brought to a close; the crops are garnered, seeds saved, and we are enjoying the fruits of our labors, and now is a proper time for moralizing, reflecting, and making resolves for future action. Nature is now going to rest, to recuperate and prepare for the future, and can we do less than take advantage of the same season for our own improvement?

We have often urged the utility of a good garden, and will now quote the words of an eminent physician, who says: "I consider the kitchen garden of very considerable importance, as pot-herbs, salads, and roots of various kinds, are useful in house-keeping. Having a plenty of them at hand, a family will not be so likely to run into the error, which is too common in this country, of eating flesh in too great a proportion for health. Farmers, as well as others, should have kitchen gardens; and they need not grudge the labor of tending them, which may be done at odd intervals of time, which would otherwise chance to be consumed in useless loitering."

We might quote other testimony in favor of a garden, but as our exhortation would hardly reach those who most need it, in an agricultural paper, we will merely urge at this time those who have heretofore had a small vegetable garden, to plan improvements on the past, to add some vegetables and fruits not heretofore cultivated, to strive to cultivate better, and to avoid the errors of the past.

With us most or all crops are gathered and

stored for winter use, or otherwise disposed of; but wherever any are left, no time should be lost in securing them before it is too late. Cabbage may be preserved, as suggested heretofore. Celery may be preserved after taking up and laying down, under sand, in boxes, in the cellar. Some may be left in the ground, where grown, by covering with litter, and over this place boards formed into a sort of roof; it is not freezing that injures celery, but the occasional thaws, the wet and rot they produce. Mild spells of weather will enable you to remove celery thus secured, when needed.

Cabbage and other plants wintered in cold frames should be allowed every advantage of free air during the continuance of mild weather, to inure them by degrees to bear the cold. The sash may be entirely removed a part of the day in mild weather, to be replaced again at night; sudden changes will require extra attention and care. Any needed draining of the ground may be done while the ground will admit; so also ploughing in manure or trenching; and in heavy soils leaving the surface rough and uneven to expose more fully to the action of the elements of winter. In some favored localities peas may be sown for an early spring crop, if they can be preserved from mice or other vermin; so also seeds of some other varieties, like the cabbage and onion. Lay down and protect the grape vines, cover the strawberry beds with evergreen boughs, or other suitable litter that will not afford a lurking and resting place for mice. Cover the ground about the trunks of the more tender and choice trees and shrubs with manure, litter, or soil, but be careful to provide for the exclusion of mice and other vermin. Clear up generally about the garden and premises, and do all that may be possibly accomplished towards forwarding another season's labor.

W. H. White.

South Windsor, Conn., 1871.

INCREASE AND STRENGTHEN THE MANURE.

A prize essay of the Illinois Agricultural Society for 1870, by R. Giddings, details the cheapest and most practical plan of increasing the farm-manure pile and saving its elements from waste, and which should be a dopted by every farmer. His plan is simply to save every particle of the animal excrements, liquid and solid, with all its fertilizing elements intact, free from waste by washing, evaporation, or fire-fang. To do this, he fills a stall, or large bin, in his stable, during dry weather, with pulverized clay, road scrapings or common soil. With this he covers the floor of each stall three inches deep, and then places the litter for the animals' bedding on it; by this means, all the urine will be absorbed, and its wealth of nitrogen saved; and such is the absorbing power of dried earth, that one three-inch flooring will not be so thoroughly saturated in a long time as to require replacing. He says his experiment required but one large bin of pulverized earth to absorb the urine of ten or twelve cattle during the stable season; and that two men with a team filled the bin in one day. Dried clay was applied also to the pig-pen and hen-roost, with the same ammonia-saving results; and if applied to the privy or earth closet, which is now being adopted, a great manurial as well as sanitary result would follow. The inducements for the use of dry earth are:

1st—That it requires no apparatus or cash outlay.

2d—That the liquid manure of cattle is worth more than the solid, and is usually lost; but, under this practice all is retained.

3d—The dry earth retains within it all the value, of which usually one-third or one-half is lost by fermentation, leaching, or evaporation.

4th—It gives much larger bulk of manure, each load of which is of double the value of ordinary farm-yard manure.

5th—That one ton of saturated earth is of more value than the same weight of even fresh saved dung.

6th—That the aggregate amount of plant food thus saved from the stalls is fully double, and in much better condition for use.

His next experiment was the cheap manipulation of bones. To make his own bone material he got from a foundry at the cost of $1.60, a 32-pound cast-iron sledge, by which, with the aid of a spring pole and an upright log set in the ground, he reduced bones to small pieces; then sifting out the finest, he crushed the coarsest pieces over again; these fine pieces he composted in layers with fresh horse-dung. After three weeks he forked over the pile and covered it with soil, and this was afterwards forked over until the bones were rotten and thoroughly mixed with the horse-dung and soil.

To save farm-yard manure from waste, and above all from fire-fang, Mr. Giddings uses both earth and water. He says "a covering of half an inch of soil will absorb every particle of escaping ammonia, but a thicker coating is desirable." A water-box on a one-horse cart is also used occasionally to stop a too active fermentation of the pile. There are other absorbents, rich in themselves, of plant food. which not only save but add both bulk and richness to the pile—muck, sawdust, coal ashes, &c. Go into your hen-house on a warm morning and you will be oppressed with the effluvia arising from their droppings; spread over them a hod of coal ashes, or a basket of saw-dust, and the air is sweetened as if by magic; and it will keep the hens in good health, besides increasing the manure, if followed up every few days.—*N. Y. Sun.*

EXTRACTS AND REPLIES.

YEAST GRAHAM BREAD. — HOW TO USE ASHES. — BORERS IN APPLE TREES. — MOSS ON APPLE TREES. — USE OF SALT ON THE SOIL. — MULCHING STRAWBERRIES. — ABOUT REFRIGERATORS.

Can you or any of your lady readers give, through the NEW ENGLAND FARMER, a good recipe for yeast Graham bread?

2. Will you please tell me the best way to use dry ashes, the best time to apply, and the quantity per acre?

3. Is there anything that can be put around young apple trees to prevent borers from injuring them?

4. What will prevent moss from growing on the trunks or bodies of young apple trees?

5. When is the best time to apply salt to the soil, and what quantity per acre? Would it be a good way to sow salt on the garden this fall, and plough it in? If so, how much per acre?

6. When is the right time to mulch strawberries? Should the plants be covered or should the mulch only be put around roots under the leaves?

I noticed in a back number of the FARMER, a correspondent making a refrigerator without filling the space between the boxes. Would it not be a better plan to fill the space? A SUBSCRIBER.

Sheldonville, Norfolk Co., Oct. 9, 1871.

REMARKS.—1. Yeast Graham bread. A notable housekeeper assures us that the following is perfect:—3 quarts Graham meal; 1 pint of wheat flour; 2 common cups molasses; 1½ cups of good yeast; a little salt; warm water enough to make a soft dough. Stir it together over night. The next morning pour it into pans to rise a short time, and bake in a moderate oven.

2. A good way to use dry wood ashes is to sow them upon the soil at the most convenient opportunity after they are collected. In the fall, as top-dressing; in the spring, on lands sowed with grain and seeded to grass. Another good way is to mix ashes with old muck, and strew a large handful of the mixture in the corn hills, and particularly in the potato hills. In the garden, scarcely anything can be better. It will have a wonderful influence on the fruits and vegetables there. We think a moderate quantity of ashes at one time, preferable to a large amount. If a hundred bushels were to be used, we should greatly prefer to spread it over four or five acres than apply it all to one acre.

3. We have never found anything placed around the stems of young apple trees, that would entirely prevent the entrance of borers. Many things have been suggested, but all have proved at least partially fruitless, so far as our observation goes. The best preventive is to keep the tree in a healthy and vigorous condition. But sometimes borers will attack them under such circumstances. When they do, examine the trees carefully. In the fall the lodgment of those hatched from eggs laid during the summer will be indicated by a little string or pile of fine excrements, and the young borer will be found in the sap-wood just under the bark, which may be removed by the point of a stout knife, and the insect destroyed. If the borer has entered the wood, which he will do the second year, take a pliable wire slightly hooked or broomed at the end, and draw the intruders out of their holes, or crush them where they are. If borers are in the tree, their chips or droppings, may usually be seen on the ground near the stem or root of the tree. Washing the tree twice each year with strong soap suds, will improve its looks, promote its growth, and, perhaps, have a tendency to keep away the borer, especially if applied in July, when the beetle deposits her eggs, or about the time the larva hatches, say the last of July or fore part of August.

4. The care of the tree, suggested above, will keep off moss, scale lice, and other depredators. Very soon after a tree shows signs of weakness and decay, it will be attacked by insects or disease. It is so with our domestic animals. There seems to be a law of nature, always coming in, to help on the decay which has been commenced, and get the invalid out of sight as quickly as possible.

5. We are not aware that there is any particular time which is better than others for applying salt to the soil. The quantity used per acre, varies widely in different hands. We should recommend a moderate quantity, say from five to fifteen or twenty bushels per acre, and then as a top-dressing rather than to plough under. If mixed with other materials, it would be for the sake of its effects upon them, in correcting their acids or otherwise.

6. Mulch strawberries soon after the ground has frozen. There is danger of covering them too much. Scatter leaves, straw, hay or light evergreen branches over them, just so you cannot see the plants. If covered with straw or hay, throw a few branches upon it to keep the wind from blowing it off. There is no need of placing the straw under the leaves of the strawberry, as they will work their way through in the spring if not covered too deeply.

7. We have made no experiments with regard to refrigerators, and can give no information from personal knowledge in the matter. The space left between the inside and outside of the refrigerators in common use are filled with various articles, such as sawdust, powdered charcoal, &c., which seems to show that the space ought to be filled. On the other hand, when a house cellar is lined up, the space between the underpinning and the brick work inside, is left clear, because it is said that the air is a better non-conductor than anything else. Why should not the same reasoning apply to the refrigerator?

EXCELLENT BUTTER.

I am a constant reader of your valuable paper, in which I have seen much about gilt-edged butter. I take the liberty to send you a sample of mine for you to pass your opinion upon. This butter is made from grass-fed Jersey, Ayrshire and Devon grade cows, and contains no foreign substance except the English dairy salt, purchased from Edward Oakes & Co., 48 Long Wharf, Boston, which I prefer to any salt in the market. S. R.

Wilmington, Mass., Sept. 30, 1871.

REMARKS.—The sample of butter alluded to in the above note was handed to us by Mr. John Owen, of Wilmington, who in reply to questions

prompted by our curiosity and gratitude for so beautiful a present, admitted that the donor was his better half, and that to her was due the credit for its excellence and for the tasteful style in which it was put up, each pat being surmounted by a neat stamp of a pineapple or a swan. The color, the clean, sharp grain, and above all the flavor, were such as are seldom combined in butter—more is the pity. It needed but a taste to show how appropriately our friend had chosen her emblems for stamps—for surely the sweetness of the fabled song of the dying swan, and the exquisite aroma of the pine-apple, were equalled in degree by the fine qualities of this crowning triumph of the dairy. But however skilful the dairy-woman, "gilt-edged butter" cannot be produced without the co-operation of the dairy-man, and such butter,—we will not say "fancy," for this is the real—shows that Mr. Owen, though an "old salt," has an aptitude for other callings.

But, seriously, we cannot refrain from again calling the attention of our readers to the profit which lies in improving the quality of the butter which comes to our market. Much of the vast amount which our dealers handle is only second rate, and still more of even a lower grade, while there is always an eager demand for a choice article, at a price enough higher to reward any extra pains in producing it. The difference in profit is best shown by comparing the figures of the past week:

Inferior and baker's, ₩ lb	10@14c
Common	14@18c
Fair to good	23@27c
Choice and extra	28@34c.

With higher rates according to customers and quality. Is further comment necessary?

COAL ASHES.

Can any good use be made of coal ashes on a small farm? A READER.

Wellesley, Mass., 1871.

REMARKS.—Yes, it will make a good hard path. As a manure, however, coal ashes is not very powerful, though there is great difference in different lots, owing to the character of the coal of which they were made, and to the amount of wood ashes, &c., that may be mingled in the heap. Coal ashes on light sands which hold neither water nor manure is beneficial by occupying the cavities between the grains of sand, thus making the soil more retentive; and on stiff clay soils it is beneficial by preventing too great a degree of cohesion,—something like the man in the story, who blowed on his fingers because they were cold, and on his porridge because it was hot. Coal ashes may also be used as an absorbent in the privy and elsewhere. If you have the Monthly FARMER for last year, turn to page 211 and read an excellent article by Prof. S. W. Johnson on coal ashes.

A DOSE OF GARGET ROOT—OTHER TREATMENT.

Will you or some of your correspondents inform me what is the proper dose of garget root—(*Phytolacca decandria*)—and how administered to a cow for the cure of garget? Is there a better remedy known than the above for the disease?

Addison County, Vt., Oct. 16, 1871. JONES.

REMARKS.—We never weighed or measured a dose of poke-root, but would describe the amount we use as a slip about as long as one's finger and half as thick, put into a potato and fed every other morning for several days.

A feed of half a pint of beans once or twice a day, has proved beneficial in some cases, as have a mess of tomatoes. A free use of warm water applied with a large rag or sponge, wet blankets, &c., is made by some. Mr. Allen, author of "American Cattle," says he has had the most gratifying success in the use of luke warm water applied to the udder in an oil-cloth or India rubber bag, made to enclose the udder, flaring at the top, and held in place by straps or cords over the back. When the application is completed the udder should be slightly chafed with a dry cloth, and rubbed with a little lard, and the animal kept warm and comfortable.

If there is an inclination to constipation, he prefers an injection of about three pints of luke warm water, simple water, to the use of purgative medicines. If the first injection does not operate in an hour or two, it shows there is much internal heat, and another should be given.

See remarks on "Bloody Milk," in FARMER of last week.

BEANS FOR BLOODY MILK.

Some time since I wrote you respecting a cow of Mr. Stoddard troubled with the red water. He tried your prescription, but did not perceive any change in the cow. Two weeks later we received another prescription from a subscriber. Mr. S. began to try that but while doing so the cow got to some beans and ate all that she wanted. Soon after there was a great alteration in her appearance, and she is now to all appearance as well as ever. She runs and plays, while before she could hardly get to the barn. Mr. S. thinks it was the beans that did the cure, but it might have been some of the other medicine. HENRY MILLER.

Westfield, Vt., Oct. 17, 1871.

REMARKS.—Beans are among the remedies often recommended for garget, and as red water is frequently a symptom or effect of the garget, we see no reason to doubt that they might be beneficial in cases of red water. Messrs. Whittemore & Belcher inform us that they often sell bone meal to farmers as a remedy for bloody water in cows, and that instances of its beneficial effects have frequently come to their knowledge.

WHY IS HAY EXCLUDED FROM PREMIUM LISTS?

Said Mr. Scammon, of Scarboro, Me., at a meeting of the Maine Board of Agriculture, "The base of all successful farming is the manure heap, and the base of the manure heap is the farm stock;' and, he might have added, the base of farm stock is grass. But in looking through the lists of premiums awarded by numerous agricultural societies, not once did we find a premium paid for hay. Premiums were paid for almost everything else, from a rag mat to a trotting horse. Why is it that hay is ruled out of the list? It is really the most

important of our farm crops. Its quality is varied by the manufacturer as much as butter varies in different dairies. The making of hay is subject to knowledge and skill of the hay maker, therefore a suitable article for competition for premiums. Will some one tell us why this universal neglect of hay?

Mast Yard, N. H., 1871. F. F. Fisk.

FALL PRUNING OF APPLE TREES.

I am always so busy in June that I cannot find time to prune my trees at that time. What is your opinion of the expediency of trimming in October and November? T. S. P.

Felchville, Vt., Oct. 15, 1871.

Remarks.—June is our favorite month for pruning; our next choice of time for that work is soon after the leaves fall in autumn. We are not sure that October is not about as favorable a time as June,—some farmers prefer it even.

COMMON FARMER'S SOAP FOR BONE DISEASE.

About one year ago, I think, the question, "What will cure the bone disease in cattle?" was asked in the Farmer; but as yet I have seen no answer. It is a disease quite common among cows, especially in a dry season, and the best cows in the herd are the ones usually troubled with it. The first symptom of the disease is an appetite for bones, sticks, or scraps of leather, &c., which the creature eats with a relish; afterwards, in time, lameness sets in, which seems to work in the muscles like rheumatism, slight at first, but gradually increasing until the creature is lame all over.

Cows have been cured the past season in this vicinity that were quite lame, by giving one-half pint of soap, such as every farmer makes, every other day, mixed with meal so that they will eat it. Some prefer to mix bone meal with the soap. I have cured a cow in my own herd this season, of the appetite for sticks and bones, by giving two doses of soap mixed with oatmeal. I hardly think it would cure a case of long standing, but if taken in season it will probably be beneficial.

Cabot, Vt., Oct., 1871. C. M. Fisher.

Old and True.—Mr. Charles E. White, of Topsham, Maine, who showed the best grade Durham yearling heifer at the late fair of the Sagadahoc county agricultural society, told the reporter of the *Maine Farmer* that, "with good feed and good care, one can have good animals. Calves must be kept growing the first winter. With plenty of water, good hay and an occasional feed of roots, they will make large, handsome animals. Too many calves receive a stunt the first winter which they never get over afterwards." If winter and calves did not come every year, we might not need such frequent reminders of the importance of taking good care of the little ones of the flock.

Louisiana State Fair.—Though we have devoted much time this fall to agricultural Fairs, and considerable space in our columns to reports of them, a very strong desire to attend "just one more" has been excited by the receipt of the programme of the Fifth Grand Fair of Louisiana, with a very pleasant invitation to the exhibition, accompanied by kind greetings and the assurance of a cordial welcome, which are also extended to the people of the North, East and West. The Fair commences at New Orleans, Nov. 18, and continues nine days. Over $20,000 in premiums are offered for excellence in mechanical and agricultural products. In New England the weather is seldom suitable for an agricultural fair, in the latter part of November, but in sunny Louisiana we presume it is an enjoyable season,—perhaps more so than an earlier date. We wish for our friends there complete success, though we may not have the pleasure of mingling with them in their annual festival, and of seeing the results of Southern industry, and the products of Southern soil, which will be there exhibited. I. N. Marks, President; Luther Homes, Secretary and Treasurer.

GRAPES AND "WINE GROWING."

The editor of the Santa Clara Valley, California, *Agriculturist*, a monthly paper, commenced last May, says:—

"We were once inclined to favor the wine interests of this State, as tending to decrease the use of ardent spirits. But fifteen years of close study and observation have thoroughly convinced us that wine is an insiduous enemy. Its victims are too often the thoughtless youth of both sexes, and it starts on the road to ruin many with a fair prospect, who might, but for its blight of moral obligations, become useful and happy men and women. It is the first round, not in the ladder to fame, but to the lower defile of degradation and disgrace. Regarding it thus, how can we but renounce it?

The term *wine growing*, has become so common that one can seldom take up an agricultural paper without seeing it; as though wine making was a legitimate agricultural avocation! Should the farmer who raises barley be called a *lager beer grower*, or the one who sows rye a *whiskey grower*, there might be some consistency in this use of the term "wine growing." But wine *is not* an agricultural production. It does not exist in nature. It may be made from grapes and some other sorts of useful fruits; so may many other extracts and poisons.

The wine business may be as 'profitable' as the beer or whiskey business, but we have statistics showing that here, as well as elsewhere, "wine is a mocker"; that for every ten that flourish in the business of wine making, five hundred are out of pocket, and at least fifty are forever ruined.

—Governor Perham of Maine, is no dandy official, but a genuine farmer. On a recent tour of inspection to the Swedish settlement in Aroostook county, the Governor noticed some wheat which he thought was not properly secured. He at once put up several "stooks" after the Yankee manner, which was a new way to the Swedes. They will profit by the lesson.

AUTUMNAL SCENERY.

AUTUMN in our country, puts on glorious hues not equalled in any other land.—There is no person so indifferent as not to notice and admire our autumnal scenery. Thousands gaze annually upon it with emotions of great delight, who would find little pleasure in contemplating a painting, though it might come from the pencil of one of the best masters.

It is quite certain that "no person who, at this season, has observed, with an eye of taste, the accidental grouping of forms and tints in a forest of natural wood, can refuse his assent to the sentiment, that 'none can paint like Nature.' It is not merely in the harmony, the freshness, and the beauty of the coloring, that this is true; but in the contrasts, in the discrepancies, and even in the long breadths of tameness and uniformity which occasionally occur, as well as in the whole style of grouping, sometimes so wild, at other times so subdued, and again so full of unexpected grace and soft luxuriance. There is a peculiar charm in the very freedom and negligence of nature."

The common opinion, that the charming colorings of the woods in October are occasioned by frost, is undoubtedly a mistaken one. In proof of this, we see, every year, trees giving the beautiful tints of our Atumnal foliage in the months of July and August. This occurs several weeks before any frost has taken place, even in low grounds.

The change in the coloring takes place from the want of vital action in the leaves. We have long noticed that where these tints occur early in the season, before any frosts have appeared, they are upon trees which are in low ground, where water usually stands until quite late in the spring. The roots of trees standing in such places do not penetrate the earth, because they have a natural aversion to going where cold water remains a large portion of the year. They spread their roots, therefore, over a considerable extent, quite near the surface, in search of the food they need. In this condition they flourish so long as the surface is moist; but when the summer droughts have deprived that surface of its moisture, these trees, although in low grounds, are among the first to show the effects of drought. The vital action which has kept them green and growing has been suspended. Sometimes we have seen a single branch glowing in the sunlight with unnumbered tints of beauty, while all the rest of the tree was "dressed in living green." This may afford a proof to some that each branch has its own particular root, to which it looks for its necessary food.

It would seem, then, that the coloring of the leaves does not take place until their vital action ceases,—whether the cause of that cessation be the *maturity* of the leaf, as supposed by some, or by old age, as is believed to be the case by others. In his exceedingly interesting and valuable work on the "Woody Plants of Massachusetts," Mr. Emerson says, "the sting of an insect, the gnawing of a worm at the pith, or the presence of minute, parasitic plants, often gives the premature colors of autumn to one or a few leaves." This corroborates our theory, we think, of suspended vital action.

Why, then, it may be asked, do not all leaves wither and tremble in the wind, an undistinguishable mass of rusty brown? In the work quoted above, it is said that "the sober browns and dark reds, those of the elms and several of the oaks, may be the gradual effects of continued cold. The higher colors seem to depend upon other causes. An unusually moist summer, which keeps the cuticle of the forest leaves thin, delicate, and translucent, is followed by an autumn of resplendent colors. A dry summer, by rendering the cuticle hard and thick, makes it opaque, and although the same bright colors may be formed within the substance of the leaf, they are not exhibited to the eye; the fall woods are tame; and the expectation of the rich variety of gaudy colors is disappointed."

In "The Seasons," Thomson says,—

"But see the fading, many-colored woods,
Shade deepening over shade, the country round
Imbrown; a crowded umbrage, dusk, and dun,
Of every hue, from wan declining green
To sooty dark."

His words do not indicate any great degree of brilliancy of tints in the foliage, but only a "wan declining green to sooty dark." It is probable that he had no adequate conception of the brilliancy and transcendent colorings in our autumnal forests. The superior beauty of our autumnal hues, compared with those of England, are said to be owing to the greater intensity of the sun's rays and the greater proportion of clear weather in America. Whatever these causes may be, it is difficult to determine. They are hidden, as yet, in the inscrutable operations of nature; though the suggestions of Mr. Sorby, an English scientific gentleman, to which we alluded a few weeks since, may be accepted as at least a plausible theory of the causes which produce these autumnal tints.

One thing, however, is certain. They are tokens of a boundless love to us, and evidences of a love of the beautiful in their Creator. When these brilliant colors appear, the year is waning, and the flush and beauty of all vegetable life is beginning to decay. The fruits of the earth have ripened; the field crops are ready for the harvest; the leaves fall to the earth and return to their native dust,—types of our own condition and mortality. But, like the last moments of the Christian, the leaves shed their brightest lustre in their dying hours, and leave with us charming remembrances of the last and most brilliant periods of their existence.

NEW PUBLICATIONS.

THE AMERICAN NATURALIST, a popular Illustrated Magazine of Natural History. Edited by A. S. Packard, Jr., and F. W. Putnam. E. S. Moore and A. Hyatt, Associate Editors, Salem, Mass. Peabody Institute of Science. 8vo. About 700 pages. $4 a year; bound, $5 a volume.

This Magazine has been published nearly five years. It is issued in monthly numbers and makes a yearly volume of about 700 pages. We have occasionally called attention to it as we have received the serial numbers; but having recently exchanged the loose pamphlets of the first four years for the bound volumes, we must again express our high estimation of the value of this work. It consists of brief articles on the various topics of natural history, which are written by scientific men for the common reader,—for unscientific people. In fact, "the leading object of the journal," says the editor himself, "shall be to amuse the reader, perhaps decoy him within the temple of Nature; and, if he be a willing student, instruct him in some of its mysteries." Hence the best skill of the bookmaker is employed—paper, type, illustrations and binding being of the best quality and most attractive appearance. Would that any word of ours might have the effect to "decoy" the boys and girls of our farm houses from the fictitious and supernatural stories which so many now read, to the higher, more interesting, and more practical "mysteries" of natural science, to which this magazine is devoted. These four volumes average twelve full-page engraved plates and 139 wood cuts, showing insects, birds, fishes, plants, &c., or illustrative of facts in geology, ancient monuments, and other subjects which are discussed in the text of these volumes.

Mr. Packard, the senior editor, is Lecturer on Entomology at the Massachusetts State Agricultural College, and Entomologist to the State Board of Agriculture, and the leading articles are written by authorities on the various subjects treated of. The London *Quarterly Journal of Science*, in speaking of the American Naturalist, says, "the leading men of science in America are among its contributors, and it is every way worthy of the great nation which it is intended to interest and instruct."

An interesting feature of the work is the department of "Natural History Miscellany," in which the editors briefly but clearly set forth any new discoveries or facts in natural history, and answer pertinent questions from correspondents. Illustrations are freely used where necessary to make the description intelligible.

As the high cost of this work, soon to enter on its sixth volume, may render it inaccessible to many for whose benefit it is published, we would call the attention of library committees, many of whom are at this season making up lists of books for purchase, to these four volumes of the American Naturalist and Illustrated Magazine of Natural History.

AN ADDRESS before the Students of the Pardee Scientific Department in Lafayette College. By Ashbel Welch, C. E., delivered at the opening of the College year, Aug. 31, 1871. Lambertville, N. J. Hazen & Roberts, 1871.

This is not an essay or an oration, but an argument for the means and the necessity of a better education of engineers, based on the experience of a long life devoted to the profession, and on the prospective demands of the country for engineering skill. Its suggestions are worthy the most careful consideration by every one looking to engineering as a profession.

The pamphlet, singularly enough, furnishes no clew to the location of "Lafayette College," while the imprint is calculated to mislead, as the college is in Easton, Penn. The Scientific Department was founded by a gift of $400,000 by Mr. Pardee, who was associated with Mr. Welch while both were young engineers. Both the Department and the Address are indications of the extent of the "new departure" from the old theory that "the only pursuits in civil life suitable for educated men were medicine, law, theology and education."

For the New England Farmer.

FIRE IN THE WOODS.

Twice, very recently, we hear of very destructive fires in the great forest of the West. In both cases the damage, estimated pecuniarily, is stated at a very high figure. It is safe to say that this kind of injury is always understated. The loss is not only for the present time, but still more for the future, and its amount cannot easily be calculated. The effect of a forest on climate cannot be estimated; the pecuniary value, only very imperfectly.

This manifold loss ought to be prevented. Especially ought it to be in the Northern and Eastern States. We cannot afford to lose our forests. It takes many years to restore them. We ought, at once, to take measures to prevent the recurrence of these losses.

Everywhere in New England, the forests are shamefully neglected. Everywhere they need care. Whoever will look into a forest, will find that nearly every tree needs to be cared for. The old, dead branches, near the ground, are injuring the growth and the value of the whole tree. There are many white pines, for example, which, if properly managed, will become valuable timber trees, but which, if neglected, will be of very little value. Every timber-man knows that a dead branch left near the base of a tree becomes a knot, which almost destroys the value of the tree as lumber. In every forest therefore, all the dead and dying limbs should be carefully cut off. These limbs are always of value as fire-wood, especially if cut off as soon as they begin to die.

Then, in many places, the trees are too close. The earth cannot furnish sufficient nourishment to give them a profitably rapid growth. Wherever they are too thick, some of them, the poorest, crookedest, and most unsightly, should be cut down to the ground. Everywhere they are now valuable as fuel. The same is true of all evergreens. Wherever they have grown up naturally, they are usually too thick. One half would be better than the whole. The same is true in regard to many of the hard-wood trees; not so strikingly true, however, as in regard to evergreens.

If all these superfluous trees and old decaying branches were removed, indeed, if only the dead or dying branches were taken away, the danger from fire would be very much diminished; in many forests, entirely guarded against.

G. B. E.

MORE PERCHERONS.

A correspondent of the *Turf, Field and Farm* writes that he has lately examined in New York, at the stable of Robert Stoddard, Greenwich St., five fine stallions, imported from France by Messrs. M. D. & E. C. Covell, of Delaware, Delaware County, Ohio, at a cost of nearly $4,000 per head. They are of the Percheron breed, and weigh, on an average, 1,800 pounds to the horse, and they display a great developement of bone and muscle, and from their appearance in the street they show you a very lively and easy gait, and look tough and hardy, and are a breed well adapted to this country. I should prefer this breed of horses to any other imported from Europe on account of their feet, which is one of the most essential points with us. And this is one of the worst features of European draught horses,—they have very poor feet, and cannot stand our pavements but a very few months at the furthest, on account of their feet giving out. But this is not the case with the Percheron horse; I think these have as fine a set of feet as I ever saw under a horse, and I think that the above gentlemen could not have selected a better breed of horses in Europe, so well adapted to this country, if they had sought to do so. I wish them a hearty success in introducing this valuable stock into America, and I think that the many friends of the equine race will join with me and say they have done great credit to themselves, and fulfilled the demand of the American people in draught horses. Friend Stoddard expects another stable of studs in a few days, from Scotland, which he says will be fine, and I have no reason to doubt his word. He generally means what he says, and is a great lover of good horses.

HOW MONEY WAS MADE BY FARMING.

A correspondent of the *Canada Farmer* details a conversation he had with a man from Devonshire County, England, who was apprenticed when a boy to a farmer there by a parish. On landing in Canada he had half a sovereign left, a wife and one child. He soon found work and better pay than in England where he could earn only fourteen pence a day. He worked for wages six years, when having saved "a bit of money," he hired a farm. We quote from the conversation:—

"Master had a farm that he let. He could not get any one to keep it more than one or two years, and they generally made a poor mouth at the rent, as the farm was so bad; and well it might be bad, for they sold everything off it, and never fed even the hay or straw; it was very foul, too, with weeds. At last no one would take it, and I told master that the reason no one could do well was because they did not know how to farm. I knew this from my experience in England, where we used to farm well and raise lots of stock on our turnips, and get plenty of manure. Besides, we always used there with our turnips guano and bone dust, and were sure of a good crop. So master let me the place at rather more than three dollars per acre, which is too much rent; but I was glad to get it any way. I got

a team of horses, and there were enough buildings on the place to make a shift with, and master promised to put up more if I paid my rent and did the land justice; so we strapped to work; we got a little stock about us, and I worked the land as well as I could; but for the first three years I had to work out with my horses to pay the rent."

"How long did it take you to get the land that was out of condition into a good state; I suppose you had no manure?"

"No, I had none; it took three years. I fallowed it, ploughed in green stuff as much as I could; I soon got some manure together and raised turnips, for I could have done nothing without them. I manure for the turnips in the fall. As soon as I got turnips I got stock, and fatted them, and sold them and made manure. Then the land began to get better, and I raised capital crops of barley, then clover, and finally I got to raise some tidy wheat. I had great trouble though to struggle on with my small means; but I have managed to get through my trouble, and I now get good crops on all the land except one piece, which is very light and poor. That piece, however, raises pretty good crops sometimes, and is getting better."

I then asked him had he ever ploughed in any crop that had a particularly beneficial influence on the land.

"I planted about three-and-a-half acres of corn, and with the help of ashes and plaster and manure to each hill, got a pretty good crop. I cultivated it, and kept it clean, and harvested the ears in the usual way; then I turned in the stock for a few days, and let them eat what they would; they did well on it. As soon as they had what they wanted, I dragged the stalks all down one way, the way I wanted to plough; then ploughed lengthwise and ploughed them in. Next spring I sowed the land to barley, and had a good crop, which I seeded down with clover; and I never saw such a crop of clover as I got off that field. I could never have supposed that corn stalks would have done so much good as they did. You know corn stalks, are very sweet, and I think there is a deal of good in them."

In reply to questions as to how he fed his corn and peas, he said he gave his horses and pigs only what they eat clean and digest thoroughly,—using his corn mostly before it became so hard that stock could not chew it readily, and boiled all his peas.

This man had been on the rented farm eight years and with what he had previously saved was about to pay fourteen hundred dollars, cash down, for a farm of his own.

HOW I KILLED CANADA THISTLES.

In our land thistles do not go deeply into the sub-soil; it is level, rather wet land, and the sub-soil does not seem inviting to them. Often in ploughing I have chanced to run the plough just over or under a long line of thistle roots, sometimes exceeding ten feet in length. On careful examination I found the roots to strike upward or sideways, never downwards, or rarely so. I also found by transplanting some of these roots, and entirely removing them from their original bed, that numbers died and became rotten, especially when severed from the parent stem; whereas if allowed to be simply turned over by the plough, and *not removed*, but severed from the parent stem, they always throve splendidly and increased wonderfully, especially after fall ploughing. I therefore abandoned ploughing in the fall altogether, as being worse than useless where thistles existed and summer fallow was intended the following spring; and by leaving the ploughing until about the fore part of June, or even later, the thistles had obtained complete mastery and a most rank growth, many of them showing for flower, and all several feet high. I now went at them with a vengeance, my strength increasing as their power of resistance increased. They had fulfilled their mission, or nearly so, and were in flower and bearing seed, and so far were decreasing in vitality or power of recuperation. The land was rather hard and turned up rough, and one day's ploughing in hot dry weather in June destroyed millions. Some, however, lived on, but the ploughing (without harrowing) totally cleared a field of twenty seven acres. I was then quite satisfied that to destroy Canada thistles you must not plough in the fall or early spring, but wait until the thistles were in bloom, and then ploughing as roughly as possible, and never harrowing until after the second ploughing, thus keeping the land as rough as possible, to admit of the greatest quantity of surface exposure to the sun and dry wind. This course completely eradicated the thistles in that field. Afterwards I grew barley, the year following sowed wheat after the fallow in which I killed the thistles, and to this day that field is clear of these pests.—*Cor. Canada Farmer.*

WESTERN FARMS NOT EXHAUSTED.—The editor of the Rochester *Rural Home* gives a description of the farm of H. H. Olmstead of Leroy, in Genesee County, N. Y. The farm contains 250 acres in the highest state of cultivation, and so far from being "run down" by seventy years cropping, it will give to-day, we believe, as good returns for seed and labor as it did the day that the removal of the primitive forest exposed the virgin soil to the sun. The oat crop just harvested, was one of the heaviest we ever saw. We spent an hour in a ten-acre field of Early Rose potatoes, which were then being dug with a Marcellus potato digger, the first successful operation of a potato digger we had ever witnessed. The yield by actual, correct measurement, was 244 bushels to the acre.

TRANSPLANTING TREES IN THE FALL.

VARIOUS opinions are still held by different persons as to the time of year in which it is best to transplant trees. Some, having large experience too, insist that Autumn is the most favorable time, and others, possessing equal skill, perhaps, hold to the time-honored custom of transplanting in the spring.

The observance of a common practice may indicate what the popular opinion is, but does not prove that the practice is a correct one. If a decided opinion is stated why one season of the year is better than another for doing a certain thing, then it would seem that some sound and plain reason should be given to sustain that opinion.

We have found it convenient to transplant fruit and forest trees at various seasons of the year. Quite often in April and May the work has been necessary. In one instance, an apple tree was to be removed because in the way, but it was in full leaf. In another the apple tree was about 10 inches in circumference, had a large, vigorous top, and was in leaf and blossom. Both trees were removed, however, and grew finely; the one removed when in blossom produced a fair crop of fruit the third year from the time of removing it.

When we came to the place where we now reside, there were no trees upon it, either for fruit or shade, with the exception of a dozen or two of old apple trees, which were fit neither for the one nor the other. The house stood exposed to the fierce summer suns and winter winds. To plant young trees to shade the house was a process which we could scarcely think of waiting for, and in order to secure the blessing at an earlier day, we selected two elms, one about 8 inches in diameter, the other about 5, each having large and beautiful tops. In November these were dug about and underneath, with the greatest care. When a leading root was found, it was followed, taking away the earth with small picks, improvised for the purpose. The roots laid bare were immediately coiled up and covered with old woollen clothing or horse blankets. In this way every root was detached from the surrounding soil, until the whole remained free and clear. The tree then stood in its original condition, with a ball of earth about its roots six feet in diameter, two feet thick, and estimated to weigh, with the tree, about four tons. The ball rested on pieces of timber, on every side.

In this condition the ball froze about as hard as a rock, and was removed in January to the hole prepared for it and set when the thermometer stood at *nine degrees below zero!*

In digging about the tree provision had been made for sliding a stout ox-sled under the ball, by canting the tree over with pullies. When this was done, six pairs of oxen found it as much as they could well do to haul the load one-fourth of a mile into place. The team passed through the hole, pausing when the tree was over its centre, which was forced from the sled by long and stout levers upon a bed of rich garden soil which had been stored in the barn cellar for the purpose. This tree was set in January, 1848. It was then about eight inches in diameter, and is now about twenty-four inches, with a broad and beautiful top.

If we transplant apple trees, we expect every tree to live, be the number large or small; and our expectations have rarely been disappointed, though we have set about as many in the fall as in the spring. The time of transplanting has been a matter of convenience rather than as selecting it as the best time for the trees.

Our decided opinion is, that all things considered, the fall is the best time to transplant deciduous trees, doing it immediately after the leaves have fallen. Why?

1. For this important reason: trees are fed—what they extract from the soil—by the small spongioles, or fibres, that spring from the larger roots. In removing a tree, it is next to impossible not to injure many of these delicate fibres; and as these are injured, so is power lost to continue growth. Therefore, the more time the tree can have to substitute new fibres for those which have been destroyed, the more certainty there will be that the tree will live.

If it is set in the spring the period soon arrives when leaves and blossoms are put forth, and the tree requires much moisture which cannot be supplied, because its feeders have been taken away, and there has not been time to supply new ones.

On the other hand, if the tree is set in the fall, it immediately goes to work, and continues to work, unless the ground is frozen about the roots, all through the fall, winter and spring, so that if all things are prosperous, new feeders have been supplied, and leaves, blossoms and continued growth will be produced. This we consider *the* great advantage of transplanting in the autumn.

2. In October, the demands upon the time of the farmer are not usually so pressing as they are in April and May.

If the tree to be set is large, it will be well to shorten in some of the branches, and thin out others in its centre. The soil should be pressed compactly over the roots and raised a little about the stem. If the tree is large, and has a top that will resist the wind, stones of considerable weight ought to be laid on the surface over the roots; otherwise, the wind will rock the tree and prevent the fibres from attaching themselves to the soil.

SLAUGHTERING HOGS.

An experiment in killing a ferocious hog some years ago, led us to consider the modes adopted for taking the life of the poor beasts in preparation for dressing them. The animal was purchased from a drove, was one of the long-legged and long-snouted kind, probably born in the woods, and as long as kept in the drove, was, in some degree, manageable; but when separated, about as ferocious as a tiger.

No amount of good feeding and coaxing seemed to mollify his wild nature, for he was always ready to dash at any person who was indiscreet enough to enter his domain.

By dint of corn meal, boiled sweet apples, and sundry gatherings from the kitchen, the beast grew up so as to weigh about 300 pounds. Owing him a spite for his bad behavior, and believing "discretion a better part than valor," we concluded not to enter his domicil, knife in hand, but to allure him by some dainty morsels up to his trough and then plant a pistol ball between his ears and see what the effect would be. It was excellent. All his former rashness in a moment was gone. He lay before us instantly "as dead as a mallet." There was no racing and frightening, no squealing, nor deadly thrust of the knife into the poor beast's throat. There was evidently no pain felt, as no limb moved or muscle quivered.

Now has come the hog-butchering season, and the country round will resound with the screams of dying hogs, making the women faint, and the children in the family, with their fingers in their ears, run into the cellar, or into the depths of some closet, to get away from sounds which they will never forget though they may live to be old people.

It is an age of liberality; let it, also, be an age of humanity. If it be a crime, punishable by law, to starve or overwork a poor horse, let it also be a crime to put a creature to needless pain, which we have sheltered and fed and constantly cared for during a twelvemonth.

We have given several old horses their quietus with a gun, and so sudden and completely were all the powers paralyzed, that there was not the slightest evidence that any pain was experienced. They fell slowly forward, without noise or struggle. So it was with the hog.

Will not the reader, then, see to it that no animal of his shall be hunted down, caught and bound, and then die under the torture of the knife, this year.

A pistol will be found most convenient, but if a gun is used it should be with a small charge of powder, and a plug of hard wood three-fourths of an inch long and half as thick through will answer as well as a ball. In taking this course the head is not disfigured so as to be noticeable, and in every respect it is preferable to the old inhuman mode of killing a hog.

Will the "Society for the Prevention of Cruelty to Animals," notice this and "govern themselves accordingly?"

ROOTS IN THE HOUSE CELLAR.

Persons exposed to atmosphere tainted by decaying vegetables are generally supposed to be in more danger than if exposed to the odors of decaying animal matter.

A large collection of weeds, pulled from the fields and exposed during a damp and hot season, give off a sickening odor that is intolerable.

Sink spouts that empty themselves into a rank growth of weeds at the back door, where some portion of the weeds are constantly decaying, are supposed to give rise to some of the most virulent forms of fever. In some

cases nearly every member of a family has been prostrated with typhus fever in its worst form, where the cause has been supposed to arise from such pollution about the house.

So, decaying vegetables in the cellar,—turnips, cabbages, &c., may prove like "death in the pot." Their odor sometimes pervades the whole house, and is as disagreeable as it is pervading.

Our caution to all is, if vegetables *must* be in the cellar, to keep them in as low a temperature as possible and prevent freezing. Then give the cellar all the ventilation that can be had, and as frequently as the air can be safely admitted. At the earliest moment in the spring remove all vegetable matter, and cleanse the cellar as scrupulously as the good wife does her pantry.

Wherever there is a barn cellar, the cost would not be large to prepare room in one corner of it purposely for roots. This would probably be the cheapest course in the end.

FARM IMPROVEMENT IN MASSACHUSETTS.

The New Bedford *Standard* gives an interesting account of the improvements made by Mr. Abner H. Davis, of New York, on a farm in Dartmouth, about two miles from New Bedford, containing seventy-four acres, of which fifteen are wood land.

The estate has been in the hands of the present owner a little more than three years. An inference as to the character of the land and the extent of the improvements made, may be drawn from the fact that carts, wagons, stone drags, derricks, &c., to the value of $4000, have been constructed especially for this farm, and that the number of men employed last year averaged over twenty, at one time running up to seventy-five; and this year the average number has been about fifteen,—the labor of digging rocks having been mostly accomplished in 1870. In fact, the writer says, one of the rockiest tracts in Dartmouth has been transformed into a beautiful farm, which promises to repay abundantly the labor and expense incurred in improvements.

Large tracts have been cleared of rocks and underdrained, by disposing of loose stones below ground, in trenches six feet wide, and many of them five feet deep. These being covered with soil, the rocks are out of the way and perfect drainage secured, at the same time without loss of land in open ditches. But this does not get rid of all the rocks, large quantities being disposed of in heavy substantial walls.

A brook meadow of ten acres has been cleared, and the brook walled on each side up to grade, and a walled pond is to be constructed forty feet in diameter. Another rocky swamp of ten acres covered with wood, has been cleared, underdrained and will be ready for planting next spring.

The soil of the farm is very strong. Twenty-three rods of land, in one of the lots which has been for many years under cultivation, yielded this year ninety bushels of potatoes, very handsome and smooth ones, of the Early Rose and Early Goodrich varieties. No manure is used except that coming from the barn.

On one tract of three acres of reclaimed land which bore little besides rushes, Mr. Davis has raised this year 100 tons of green corn fodder, from Southern corn in drills three and a half feet apart averaging eight and a half feet high. Other portions are planted with corn in hills, beets and turnips, which grew finely and very large.

The crop of pears this year is large, on about a hundred trees, but Mr. Davis says it is nothing to what it was last year. Apples are very slim this year. A plot has been appropriated to blackberries, and the bushes are looking finely.

As to buildings, a very fine large barn with tool house, piggery, carriage house, hen house, &c., with all the modern improvements, have also been built.

The farm improvements have been made under the direction of John S. Davis, a brother of the owner.

CORN FODDER PER ACRE.

Some one having asked in the *Maine Farmer*, "Can any one tell, by his own experience, how much corn fodder can be raised per acre?" Mr. H. S. Trevett, of Trenton, says that he carefully weighed the growth on a patch 56x26 feet, and found it 1432 lbs., equal to 34 4-5 tons per acre. The corn was planted in drills two feet apart, fifteen kernels to the foot. Time from planting to cutting 62 days.

Isaac Burnham, of Bluehill, weighed the corn on one square rod, and found it to equal 22 tons and 192 lbs., per acre. Planted on gravelly loam in drills 18 inches apart.

Mr. Z. A. Gilbert, by a like process, found the yield to equal 34 tons and 1229 pounds per acre. He planted half an acre. The land was a good soil moist but deep, was worked deep, and thoroughly pulverized. Eight common ox cart loads of manure was distributed in drills.

Mr. Gilbert says, The quantity cut and weighed was carefully bound, well dried out doors, and then stood up against the west gable window of a large barn, and there remained till January. It then appeared to be well dried, was bright and fragrant. It was then weighed and the amount of dry fodder to the acre was found to be 12 tons, 1280 lbs. The shrinkage was something over 60 per cent. I should have remarked that the corn was not cut and weighed in its most succulent or greenest state, but was allowed to stand till it had arrived at a greater state of maturity, the spindles having made their appearance in the greater part of the stalks.

A considerable quantity of the crop was cured and housed for winter use. The cattle ate it with a relish. Corn fodder cut green and well cured bright and sweet, is considered by feeders to be

worth nearly or quite as much per ton as the average of hay. Last winter hay was worth at the barn twenty dollars per ton. Allowing my corn fodder to have been worth twelve dollars, and the value would have been over a hundred and fifty dollars to the acre. I have no doubt the half acre of corn saved me more than seventy-five dollars' worth of hay. My faith in the value of the crop is so strong that I have another half acre this year of nearly as good growth as that of last year, from which am now feeding.

Curing.

I cut it with common corn cutter, throwing it in bunches the right size for a bundle, and when well wilted bind it up. I then stand the bundles by the side of the fence, or anywhere so that the air will draw through them. In good weather they will dry very fast. On the appearance of rain, put in barn, and stand the bundles in an upright position around on the hay loft, against the walls, against the gables, against the roof, the beams or against poles laid from beam to beam; around the floors, the empty stalls; into the sheds and out-buildings —anywhere that a bundle will stand in an upright position. No matter if only wilted when taken in, it will dry if kept upright. It is almost impossible to dry sufficiently to mow away or even to lay down if only to the depth of one bundle.

THE WADSWORTHS OF NEW YORK.

Some of our earliest recollections are of neighboring farmers packing up their goods and emigrating to the "Genesee Country,"—the "Far West" of our boyhood. Associated with reports from that distant country was frequent mention of land agents by the name of Wadsworth. These recollections were revived by the accounts which were published of Gen. James S. Wadsworth, who left his great property to defend the government of his country, and fell in the first battle of the Wilderness.

Hence we have read with interest a notice of the "Wadsworth Estates" recently published in the Rochester *Rural Home*, and think some of our older readers will thank us for a brief abstract of the article alluded to.

Eighty-one years ago last June, James and William Wadsworth, then young men, who were entrusted with agencies for the sale of large tracts of wild land, arrived in the then wilderness of the Genesee country, after a journey of several weeks, from their home in Connecticut. William died a bachelor in 1833. They were intelligent, cultivated men, and with a wise forethought, gave tone and impulse to the style of husbandry ever since popular in that section, by introducing improved varieties of horses, sheep and swine. Much of the beauty and park-like scenery of the valley is due to the fine taste and esthetic judgment of James, the younger brother, whose plans of improvement were broad, comprehensive and thoroughly practical.

Gen. James S., the son of James, succeeded to the chief supervision of the estates some time before the death of his uncle and father. He left three sons, Charles F., Craig W., and James W., each of whom are still large land owners.

The estates of W. W. Wadsworth, one-fourth of the whole, are managed by agents, and are situated in what are now the counties of Livingston, Monroe, Genesee, Erie, Orleans and Niagara. These farms are let yearly, but so satisfactory are the terms to tenants that most of them have occupied the farms for a long term of years. The lease made out each year under the advice of the farm, or out-door agent, specifies how much and what lots shall be ploughed and what crops shall be put on them. Repairs, improvements, &c., are also stipulated.

Chas. F. Wadsworth, the oldest son of Gen. James S., was not bred a farmer, but has recently purchased a farm of 800 acres, and enters upon farming with all the enthusiasm of his brothers. He makes the breeding of Short-horn cattle a specialty.

Craig W. the second son, resides on the old homestead, the same that his grandfather occupied. The old mansion is beautifully located at the head of and facing the principal streets of the village. It is surrounded by grounds, almost entirely ornamental, consisting of 150 acres. The view from all parts of these grounds is very fine overlooking the valley and cultivated upland for miles away. He was educated a farmer, and has a decided taste for and enjoyment in the pursuit. His farm contains 1800 acres, mostly on "the flats." He has sixty head of thoroughbred Short-horns. He gives their breeding his personal attention, and takes great pride in producing fine animals, treating them as tenderly, and talking to them as lovingly as an indulgent father to his children.

He is grazing about 350 head of stock cattle. He buys steers in the spring, not less than four years old, and turns them to pasture, to graze for five or six months. On this luxuriant feed they gain from 350 to 400 pounds, when they are sent to the butcher. He is also making a point of breeding fine horses, and has fifty valuable horses besides those employed to do the work of the farm. His stables are perfect models, and worth a long journey to see.

James W. Wadsworth, the youngest of the three brothers, is not only an extensive but an enthusiastic and successful farmer and stock breeder. He has a fine farm of 1300 acres in the town of Groveland, devoted exclusively to grazing, a sheep farm of 1500 acres in Caledonia, and one at Geneseo, of 275 acres. On the latter farm he keeps his thoroughbreds, of which he has about fifty. Here, Mr. Wadsworth has just completed two fine stock barns, horse barn, corn house and herd-keeper's house, at an expense of $12,000.

—The Louisville *Farmers' Home Journal* says that the third annual fair of the colored people of that place and vicinity was largely attended every day, notwithstanding the weather was quite chilly a portion of the time. The displays in the various rings are highly spoken of also.

FARM-WONDERS.

The following poem was read at the Fair of the Hampshire County, Mass., Agricultural Society, at Amherst, by Prof. H. W. Parker, of the Agricultural College.

My theme is wonder; and where does wonder dwell?
On fiction's page, or in some enchanter's spell?
In caverns of spar, in hills of silver and gold?
In tropical wilds, or the wastes of arctic cold?
Lo! here and everywhere it abides,
Lurks by the highway and all around us hides—
Nay, stands in full view, regarded not by the blind,
Who lack the thousand eyes of a studious mind.

These towering trees, and the blessed fruits or grains—
Born them, and only a mound of ashes remains;
The tons of water took wing and vanished in gas.—
Truly a sea is your meadow of waving grass.
And the forest monarch that lies in slow decay,
Blackening to mould—it is verily burning away
With a heat that never in roaring flame appears,
Only because it is spread through a hundred years.

This field of tubers—the food of the Emerald Isle—
What wonder is here that can a moment beguile?
Plant of a marvellous family!—cousin, indeed,
To an herb of bad reputation, the nicotine weed,
And to three of the deadly drugs the doctors know,
And the fiery peppers our grandmothers used to grow,
'Tis the egg-plant's brother, its sisters the bittersweet
And a maidenly flower or two that we love to greet.

But see that broad-winged insect, with buttons of gold—
Two rows on his black tail-coat, like a soldier bold!
Do you know he is stingy of buttons to his wife,
And was fond of your parsnips in his early life?
And there is that innocent-looking one in white,
With tips of black that are barely seen in his flight—
Do you know that he came from Europe a while ago,
And his children will eat your cabbage sprouts by the row?

And there are the birds; the restless noisy wren,
That scolds all day like a little lunatic hen—
Know you, my fussy friend, that it soon wears out,
For it lives but four short years, or thereabout.
And then your horses and swine—why, who would suppose
They are classed with elephants,—smaller, shorter in the nose,
But flexing that feature in quite a handy way,
To search the ground, or to pick and mumble the hay.

The outcrop of sandstone, here on your valley farm—
A very bad crop to raise—lo! here was an arm
Of the ocean; and then the rock was muddy shore,
By feathered reptiles tracked—prize poultry of yore,
So large that, if sold at the present market rate,
Any one would have bought a set of silver plate.

Evening descends, and the bright day's work is done.
How strange to know the metals that boil in the sun;
And to learn that only the red waves struggle through
At sunset, because they are largest; and that the dew
Never falls, as we say; and why we hear the sound
Of far-off water at night, when the air is damp;
And why, in yon orb that glimmers, our nightly lamp,
The air and oceans were long since lost in the ground.

But, say not that science dissects and pickles the face
Of beautiful Nature, forgetting her sweetness and grace.
There are infinite hues in yonder mountain blue,
And infinite mystery hides in its tender hue;
And to him who understands, there's infinite charm
In the tints and flowing sweep of the homeliest farm.

Shame that a wonderful world, which God designed
To be the first primer for man's immortal mind,
Should never be learned—not even its alphabet,
That shines in all forms and colors of beauty set.
Sad—sad, that to many the joyous knowledge is lost
Which glorifies labor and richly repays the cost.
Come, friend! study books and Nature; open your eyes,
And live the life of eternal happy surprise!

CRAB APPLES.—The exhibitions which have been made at the Fairs of the Vermont Agricultural Society for the past few years show that great improvement has been made by grafting and cultivating this hardy fruit, in the northern part of that State. We have recently received from Herendeen & Jones, Nurserymen, Geneva, N. Y., a package of the Marengo Siberian Apples, (or Marengo Winter Crab,) No. 4, which show that their cultivation is not confined to northern Vermont and Canada. They are of so rich and pleasant a flavor, as an eating apple, that the word "crab," seems quite a misnomer for this fruit. Their general color is a lightish red, with plashes or streaks of a darker red, with some white, size from 1¼ to nearly 2 inches in diameter, and altogether it is a handsome fruit. The four varieties of the Marengo Siberian Apples, cultivated by Messrs. Herendeen & Jones are much similar in all respects, except time of ripening and keeping, which varies from fall to late spring. That they are excellent as preserves, we had evidence last year in testing specimens put up by our correspondent Z. E. Jameson, of Irasburg, Vt.

PRICE OF MILK.

The Board of Managers of the Milk Producers Association met in Boston, Sept. 6, to fix the winter price of milk furnished by the can to the contractors. This meeting was adjourned to Friday, Sept. 15, at the Quincy House. A committee consisting of J. A. Harwood of Littleton, Wm. Ramsdell of Milford, and Hammond Reed of Lexington was appointed to make arrangements for holding the next annual meeting of the Society. Notwithstanding the facts that cattle, swine, grain, dairy products and some other articles of produce are lower than last year, it was voted by the managers of the Milk Producers Association that in consequence of the small crop and high price of hay, and the high cost of articles which have been raised by farmers to make up the deficiency of the hay crop, estimated at one-fourth less than the usual yield, that the same price as last year,—50 cents per can,—be demanded for milk from Oct. 1, 1871, to April 1, 1872.

The Contractors or Milk Dealers were also in session at the same place, and each association appointed a committee of conference. After consultation the committee reported there was no prospect of agreement; the contractors being willing to pay only 45 cents per can.

The question was then discussed in open meeting.

Mr. Rowell, in behalf of the contractors said almost everything else in the line of food is reduced in price from 10 to 50 per cent. and the consumers of milk cannot see why it should not be reduced from 9 to 8 cents a quart.

Mr. Brown, contractor, believed he could get all the milk he wanted at 45 cents a can, and Boston would be supplied at 8 cents a quart. There were so many producers near market anxious to get their milk in, that distant producers would be shu

out at the price demanded. The retail price could not be held at 9c a quart.

Mr. Robertson, of Braintree, producer, had talked with several peddlers who expected to pay more for milk this winter than last. The contractors in the vicinity of Boston were willing to pay the same as last year.

Mr. Baskell, producer, was confident that the farmers in the district above Groton Junction are not prepared to make milk for a less price than last season. They did not make a dollar profit at that price. Some had said they would give up the business, sell a part of their stock, fat calves, and get rid of their milk as best they could. He thought that if the price was reduced to the consumer a portion of the reduction should be borne by the contractors.

There being no probability of an agreement the meeting was dissolved. The Managers of the producers, will call together the associations th y represent and submit to then the result of the conferences.

THE SWINE EXPOSITION.—The old adage that "circumstances alter cases," has been sadly verified by the managers of the great National Swine Exposition at Chicago. The fact that pork is worth less than one-half as much in market now as it was one year ago has wonderfully dampened the enthusiasm of farmers in respect to swine, and many feeders probably entertain a somewhat similar feeling towards pigs that John Randolph did towards sheep when he made his famous remark that he would walk half a mile for a chance to give one a kick. The show is represented as by far the most extensive and complete of the various breeds of swine ever made in this country, if it was ever equalled in any country, but we regret to learn that the receipts fell far short of the expenses of the exhibition.

For the New England Farmer.

MAINE BOARD OF AGRICULTURE.

The farmers of Eastern Maine in council—Underdraining—Progress in Agriculture—Cooking food for stock—Value of hay and corn for feeding stock—Improvement of pastures—A flock of visitors—Pay as you go—Clean cultivation—Manures—Fruit and fruit trees.

The autumn session of the Maine Board was commenced at Lincoln, forty-five miles east of Bangor, on the line of the European and North American railroad, on the 19th of September, and continued the two following days.

A farmers' convention was holden in connection with the Board, which was fully attended by a community of intelligent and prosperous farmers, together with a goodly sprinkling of ladies. It was agreed upon all hands that the session was one of unusual interest.

The first forenoon was taken up with preparations and arrangements. In the afternoon an address of welcome to the Board was made by Col. Hersey of Lincoln, followed by John Robinson, Esq., which were responded to by Z. A. Gilbert, Vice President, in his usual happy manner.

In the evening was read a paper upon underdraining, by Mr. Hawes of Knox, a member of the Board, which was a plain, practical, common-sense paper, going to show by practical experience the value of intelligent efforts in this direction. This was followed by Frank Buck, of Orland, upon "Progress in Agriculture." This paper was highly spoken of, but not having heard it, your correspondent can only express the opinion of others.

Wednesday Morning.—The President, who had stopped on the way to give the address before the East Kennebec Society, at South China, appeared and took the chair. Z. A. Gilbert, member for Androscoggin, gave a practical, intelligent and exhaustive lecture upon "Cooking Food for Farm Stock." Mr. G. showed conclusively that thirty-three per cent. could be saved by cooking, and that at a small expense. He has visited several of the most noted feeders of steamed food in Massachusetts and Connecticut, among others Gov. Brown, Wm. Birnie and the Messrs. Wells, conversed with them and examined their fixtures, and was able to speak advisedly. Intelligent experiments had always proved satisfactory and in no case has the practice been abandoned as unprofitable. The woody fibre must be broken up to liberate the nutritive elements, and this can only be done by heat and moisture, and this can be far more cheaply supplied by steaming than by the animals, as in the one case the fuel is dry wood and in the other hay and grain. The most carefully conducted experiments demonstrate that twelve pounds of hay and six pounds of meal and shorts mixed are equal when steamed to eighteen of hay and nine of meal and shorts fed dry, both for flesh and milk. Steamed food is considered by many observers as a specific for coughs and incipient heaves in horses. As to the question, "Is steaming practicable on a small scale?" Mr. G. said one of his neighbors in Lewiston, Mr. Dickey, had practiced it systematically on a small scale, and is abundantly satisfied with the result. A steamer for a small stock costs less than a mower, is of far greater utility, and for successful dairying is of the very first importance. Steam has worked wonders for all other classes, and is yet to do so for the farmer.

In the very spirited discussion which followed the lecture, Secretary Goodale said the subject had been treated so exhaustively that he knew of no more to be said. The testimony is unimpeachable, being of the highest character and all on one side. For late cut hay, swale hay, straw, corn fodder and all poor fodder, it is of the very first importance

that you thus put it in such condition that the animal will eat it and can utilize it. All the heat you put in is equivalent to so mu h food. Nearly all diseases of animals in wint r arise from constipation, which is almost wholly obviated by feeding steamed food. It adds to the value of the food by rendering the indigestible parts digestible. The risk of fire is not materially increased.

The whole subject was discussed in a manner that showed that farmers had thought upon it and had discussed its importance.

Afternoon.—A very carefully prepared paper was read by Mr. Wasson, of Hancock, upon "The Comparative Value of Hay and Corn for Feeding Farm Stock," a subject upon which all are ready to talk, and upon which very few have any accurate knowledge. No general rule will apply because of widely varying circumstances. Bulk, to a certain extent, is as essential as nutriment; and it is safe to say that one-fourth can be saved by a warm barn over a cold one. Have regard to the increased value of the manure from good food. Commence to increase your fodder by weeding out the poor and mean animals which ought to go to the butcher or to the dogs, even were hay ever so plenty. The feeding of meal will not induce disease in milk cows if the meal is mixed with one-third shorts and the cow fed upon half hay or other fodder.

In the animated and interesting discussion that followed, the general idea seemed to obtain that fifteen bushels of corn fed judiciously was equal to one ton of merchantable English hay. The general opinion seemed to be that meal should be fed wet rather than dry. One gentleman expressed the opinion that cattle for beef exclusively could not be grown at a profit in Maine. One of his friends said they paid a profit to somebody, for the gentleman had himself made $1500 the past season, by buying cattle at grasshopper prices. Query, Is the NEW ENGLAND FARMER read in his vicinity?

This was followed by Mr. Scammon, of Scarboro, on "Improvement of pastures." The base of all successful farming is the manure heap, and the base of the manure heap is the farm stock, (true, every time,—*Rep.*) No farmer can afford to raise weeds and and worthless bushes. Reclaim pastures according to circumstances, but do something to improve them. Clean up the bushes and weeds, pasture with sheep, manure with muck composted with ashes or with lime and salt. Some places should be drained; some are benefited by resting every seventh year. If your pasture is large, plant a part to forest trees or let a portion grow up to wood of itself. This is nature's system of rotation.

The paper was followed by remarks from Secretary Goodale, Messrs. Farrington, Superintendent of College farm, Robinson, Gilbert, Thing, Wasson, Prof. Fernald and others. The general, and indeed almost the universal opinion, was that land intended for permanent pastures ought not be ploughed.

I ought to have said before that soon after the business of the day commenced, we were disturbed by an unusual tramping upon the stairs, and a confused hum as of the sound of many voices. The door was unceremoniously thrown open, and in walked Rev. Dr. Allen, our newly elected President of the Industrial College, followed by Prof. Fernald, Prof. Pike, late of the Boston school of Technology, Farm superintendent Farrington, and between thirty and forty of the finest looking young men, all college students, that I ever saw together. (Tell Amherst to look out for her laurels.) The President of the Board protested against being thus overawed and oversloughed by larger bodies, but was assured by President Allen, that they were merely reserves ordered up for active duty, and right manfully did they discharge it.

Evening Session.—President Allen in the chair. Address by D. H. Thing of Kennebec, subject "Pay as you go." Of the address it does not become me to speak, but it was followed by earnest, eloquent, impassioned words by President Allen, Prof. A. P. Fernald by and Hon. A. M. Robinson, who was extremely eloquent and intensely earnest in his words of advice to the students. He closed by saying, "when you make up your minds to stay in Maine, then will you begin to make such homes as you will be willing to dwell in. Therefore decide to stay in Maine. Improve all your time, educate your minds, hearts and bodies, get yourselves farms, take to yourselves wives, settle down, multiply and replenish the earth. Thus will success attend you and contentment sweeten your life."

Second Day.

(Notes of Thursday forenoon mislaid or lost:)

Afternoon.—Papers by Maj. Adams of Franklin, on "Manures," and Col. Swett on "Clean Cultivation" were read. The former argued that our principal source of fertility was at home, and dwelt upon the importance of economizing every available thing suitable for the compost heap. Col. Swett plead earnestly for clean culture, and gave some startling statistics of the cost of raising weeds, premising that it lessened the crop at least one-fourth to raise the weeds annually grown in Maine. (An argument in favor of cooking food for stock, and thereby killing the seeds, —*Rep.*) When the Colonel got through, the Hon. T. Fuller asked him how he could kill witch grass. The Colonel raised quite a laugh by replying that his own farm was full of witch grass, and that he considered it one of the very best grasses, and no weed at all. Mr. Fuller thought if witch grass was not a weed he could see his way clearly to clean cultivation, for the witch grass would subdue everything else.

The evening was devoted to "Fruit and

fruit trees," and was mostly taken up by Secretary Goodale upon the cultivation of pears. A gentleman from northern Aroostook said that a few of the best varieties of apples succeeded well with them; among the most hardy of which was the Duchess of Oldenburgh. The discussion was general for a short time, when the subject was laid upon the table and resolutions were offered, expressive of the regret of the Board at the withdrawal of Calvin Chamberlain, whose term of office expires with the present year, which after remarks by quite a large number of gentlemen were unanimously adopted. Mr. C. has been connected with the Board fourteen years. A vote of thanks was tendered to D. H. Thing for his acceptable services as President of the Board, which were responded to by that gentleman at some length. Resolutions of thanks to the citizens of Lincoln were passed and responded to, when the Board adjourned to meet at Paris Hill, probably on the third Tuesday of January next. T.

For the New England Farmer.

THE FLOWER GARDEN.

Our gardens are now ablaze with the brilliant flowers of autumn. The geraniums are in great magnificence, in all hues,—scarlet, cherry, brightest of pink, palest of pink, salmon color and white. The double varieties are especially gorgeous. Andrew Henderson is the most beautiful,—its scarlet tresses are of the richest dye, and its flowers are double as roses. Madame Lemoine is of the brightest pink, and its clusters are enormous—fifty and sixty blossoms on one truss, are no uncommon sight.

The verbenas are now beauteous in all their varied tints of purple, crimson, scarlet, maroon, lilac, magenta, pink in all its shades, and indeed every color but sky blue and yellow, seem represented among their numerous varieties. The nasturtions creep in coils of scarlet, gold and lemon color, splashed with velvet of the darkest maroon hues. The Japan lilies exceed all other flowers in the richness and loveliness of their blossoms. Asters, balsams, petumias, stocks, euphorbias, achryanthus, coleus, and all the glorious sisterhood lift their bright heads adorned with vivid splendor.

But, alas! a sudden change will come over them. A cool twilight will gather,—King Frost will muster his battalions, and when another day shall dawn, his troops will sparkle from flower to flower,—not one blossom will hang untarnished from its stem,—they are dead, crumpled and sere. The black, killing frost has come, and the glory of the summer has vanished,—is like a tale that is told,—only its memory remains. A few hardy perennials still hold up their heads, but the fragile things, the brilliant flowers, the fair, fragrant and frail are utterly destroyed!

"Where are the flowers, the fair, young flowers, that lately sprung and stood
In brighter light and softer air, a beauteous sisterhood?"

And now the question is, what shall we do with these great bushes of geraniums, heliotropes, feverfews, &c., that have done their duty during the summer, and have grown to such a size that they can no longer come under the head of Window Gardening? If reserved for the latter purpose, they will not look decently for months, for they have blossomed incessantly for five months, and now demand and will have a season of rest, and if they are taken up for house plants, their roots have spread out over so large a space that but few of them can be saved, and it is needful to cut them in severely; i. e. prune off a dozen, at least, of their branches, leaving only three or four, and taking off the largest leaves of those that remain. Of course, while pruning them, due regard must be had to their shape, and be sure to do it so as to leave the plant in as graceful a form as you possibly can, if you must keep it growing. Though the plants are so large, they can be accommodated in a six or seven inch pot. This is supposing they are to be treated as window plants.

But a much better way is to raise slips from them for house culture, and reserve the large plants for budding out another spring. Any plant that possesses a woody nature can be kept over the winter in boxes in the cellar. Geraniums, fuchsias, lemon verbenas, heliotropes, roses, &c., will all remain in a dormant state until spring. Then, if brought up to the light, all the old leaves removed and some of the branches cut off, they will put forth vigorous shoots, and soon make larger plants than those of last season. To preserve them for this purpose, just before a black, killing frost, pull up all the plants that you desire to save and cut off the greater part of the leaves, allowing but a few to remain on the branches. Plant them in boxes about six inches in depth and set the plants quite closely together, filling tightly into the roots some light, sandy soil that will not mould. Water them thoroughly and keep in the shade, setting the boxes into the barn or wood-house for two or three days, where they will not be frozen. After that, if the weather is warm, let them have some sunshine and fresh air.

When the weather has become quite cold, take the boxes into the cellar, where it is frost proof. When once established in their winter quarters, no water will be needed for six or eight weeks. Place the boxes where potatoes are kept; too near a furnace will injure them. They do not desire to grow, but to remain dormant and muster their strength for the coming spring.

All kinds of delicate tea roses can be kept over the winter in this manner. They should be examined once a month, and the decayed leaves removed, lest they make them mould and injure the plants.

Oleanders, lemons, oranges, pittosporum, and all such plants can be safely wintered in the cellar. Carry down the large tubs about the first of November; water them once a month with warm water, and they will keep in fine order. Care must be taken to place them where they will not be sprinkled with the fine coal dust from the sifting of ashes. This would choke out all their life.

Scarlet salvias can be lifted from the ground after their stalks have been cut down, and their roots buried in sand, like dahlias. In the spring they can be divided into several plants. *Salvia patens* (blue Mexican sage) can be treated like a dahlia,—its roots having similar eyes, which will start out afresh in the spring.

Scarlet geraniums,—indeed all the horse-shoe or zonale varieties,—can be wintered in cool, frost-proof, dry cellars, by pulling them up by the roots, shaking off all the soil, and cutting off all the buds and blossoms. Then tie them head downwards, to the beams of the cellar. In April they will look dried up, wilted; but when transplanted they will soon recover and grow luxuriantly.

The English have tried wintering geraniums, heliotropes, roses, &c., by burying them in a trench under ground, below the reach of the frost. Roses are frequently, in the United States, kept safely in this way; but the more succulent plants have not been extensively tried, if at all. But our readers can make the attempt, and if they succeed, inform the NEW ENGLAND FARMER of their experiment. The trench must be dry, where no water can remain at a depth of two feet below the level, and it must be below the touch of the frost. The plants are laid in by the roots, in a row; then covered with straw, placed so as to carry off the water,—boards placed over the straw would be a good preventive to dampness,—then shovel in the earth to a depth according to the needs of the climate, and finish off with a ridge or roof, shaped so as to carry off all water. With a little care exercised in preparing the trench, there is no reason why most of our half-hardy herbaceous, bedding-out plants cannot be safely preserved for another summer.

Dahlias and gladioli must be removed to winter quarters before the ground freezes hard. The former flowers are in their glory now, and their beauteous blossoms will ornament the gardens much longer if when the first frost threatens they are protected at night with old sheets or blankets,—a water proof cloak will, if thrown over it at night, save a fine plant, and make it a joy for several weeks to come.

When the hard freeze must come, gather the flowers and keep them in vases. By changing the water daily, they will keep fresh for a week or more. The stalks should be cut down after the leaves are seared and the ground is freezing nightly. The soil is then shaken from the tubers and they should be laid in the sun for two or three days to dry off, being protected from the cold, by a blanket at night. This prevents any tendency to mould during the winter. When thoroughly dry, pack them in boxes or barrels, in sand that has been also dried in the sun; set them in a cool, dry cellar, where the rats will not touch them.

Gladioli should be allowed to remain in the ground as late as possible, as the richness of their blossoms another year depends upon the maturity the bulbs gain before being removed to winter quarters. But when the chilly north wind stiffens your fingers, then pull up the stems, cutting them off about two inches from the bulbs, shake off the soil, let them dry in the sun for several hours, but by night store them away in paper bags or boxes, in a dry place. They can remain in a warm closet without injury to these flowers.

All our plants are ready for window gardening. I counted this morning 105 pots. Quite a formidable array to fill five small windows! *Pater-familias* gazes at them with ill-disguised dismay, and asks in lugubrious tones, "are all *those things* coming into the house? Surely, there are not windows enough to hold them!" But we shall find a place for every one of them, and rejoice over each plant. We have treated them to the best compost we could procure; have potted them with great care, pressing the soil tightly about their tender rootlets.

Fuchsias are now in full bloom, and the ten plants that we possess are marvels of beauty and elegance. As soon as they cease blooming, with the exception of the winter blooming varieties, *Speciosa* and *Serratifolia*, the pots will all go down cellar and remain on a swing shelf, out of the reach of rats and all vermin. We determined on this course last year, when the red spiders *would twine* their invisible webs around all their branches and we could only dislodge them by constantly sifting "*Fertilizer*" over their leaves. They did not blossom, did not add anything to the beauty of our "Window Garden," but were great additions in April, May and June, on to the autumn.

By all means, fair friends, procure some variegated-leaved plants for your windows. The *Coleus* requires stove heat—green-house culture—to thrive well; but the *Achyranthus* will grow anywhere, if it does not freeze. There are three or four varieties, and all desirable. Their bright-hued leaves do duty for flowers, and when the wintry sun shines in through their rich crimson, magenta and maroon-colored leaves, the effect is gorgeous!

Hanging baskets should not be forgotten; every one of us must have at least one, and Dutch flowering bulbs must add their delicious fragrance and many brilliant hues to every plant stand and window garden. In another

article we will treat upon them and give directions for their culture. S. O. J.

For the New England Farmer.

A NEW HAMPSHIRE BREEZE.

Two men, one from New Hampshire and the other from Ohio, chanced to meet at a public dinner in New York. The man from Ohio suggested to him of the Granite State that it might be advantageous for him to remove to the West, if he intended to follow the pursuit of a farmer. The Yankee thought differently; there was no State in the Union equal to New Hampshire. He of the Buckeye State would not agree to this; Ohio was in every respect superior. The Yankee wished to know a superior feature. The Buckeye commenced to enumerate, but as fast as he presented his claims of superiority, his antagonist unhesitatingly swept them away by vigorous declarations to the contrary. At length, when all other sources of argument had failed, the exasperated Buckeye confidently observed: "You will at least allow that Ohio justly claims superiority over New Hampshire regarding its extent of territory?" "No, sir!" emphatically responded the Yankee. "Your State spreads out because it is flat. Look at the mountains of New Hampshire! Goodness mercy! Just roll 'em out flat and they'd make territory enough to cover up the whole of Ohio and fill up a big slice of Lake Erie!"

This anecdote has often been recalled while traversing this State, for we alternate continually, when riding, from level prozaic earth, to an aspiring, lofty world. Yet scarcely are we ever beyond the vision of its calm, huge hills. From their patience, illustrating a sermon on the mount, we receive a lesson read nowhere else, and which we convey back to the world of bricks to control there an active life, if we can but remember

> "We receive but what we give,
> And in our life alone does Nature live."

So does your correspondent return year by year to these mountains of New Hampshire. They bear intimacy and close study so well, one can never tire of them. Change is written on everything everywhere, yet their rock-ribbed heights remain seemingly the same as when my longing eyes first rested upon them, and they can endure admiration,—there stolid gravity remains unmoved. They rise in the landscape "as heroes and prophets in history, ennobled by what they have given, sublime in the expressions of struggle and pain, invested with the richest draperies of light, because their brows have been torn and their cheeks been furrowed by toils and cares in behalf of districts below. Upon the mountains is written the law, and in their grandeur is displayed the fulfilment of it, that perfection comes through suffering."

Now that railroads are so rapidly tracking New Hampshire, we find the condition of the people more prosperous than we have ever known it. North Conway seems to be the focus for every railroad, and it is natural enough, for it has the most exquisite setting, surpassing every other village or town in the State. With Mt. Washington at the head of the valley, and the whole great mountain architecture surrounding him, with the Rattlesnake range for a rear wall, and beautiful Kearsarge northwest, a mile away, with Mote mountains calmly rising on the west, and peering round from the southwest, strange Chocorua, with hill after hill everywhere swelling towards loftier peaks, and itself trailing for several miles along the banks above the channel of the glistening Soco, and the three miles' breadth of intervale, picturesque with luxuriant loveliness,—who would not live in Conway in preference to any other place? And it is hoped that the taste and wealth and prosperity which railroads invariably scatter, will improve Conway still more,—that barns and wretched sheds will be moved from sightly places, and houses and grounds receive better arrangements. It is enough to disgust and disenchant any one with decent ideas regarding the arrangement of pleasant homes, to pass through New Hampshire. I sometimes believe that men try to give their houses as dreary a location as it is possible. As for farming, why there's reason enough why farmers complain that their sons dislike the profession and seek other employments, or drift into the cities. Many farmers, in Maine and in New Hampshire especially, appear to be suffering from a severe attack of vertigo, or they have been lightning-struck. This is altogether inexcusable and a matter of regret. They need not complain of a want of time to improve things,—there's many a leisure day in a farmer's life. When men put more pride, more education, more taste and appreciation into their farming, their daughters will not sigh for the small talk and peacock airs of counter-jumpers; neither will their sons leave homesteads in search of professions where brains stand a better chance than muscle. How true it is that one thrifty, self-respecting man can affect the prosperity and respectability of a whole neighborhood! My host bought this pleasant retreat four years ago. It was then in the common condition of many New England farms,—the buildings weather-beaten and dilapidated, the lands generally used up, the fences but crazy apologies to prevent the intrusion of cattle. He went to work, and now there is not a prettier place or a lovelier location hereabouts, and better still, this homestead has doubled its value. Not only that, my host, by the assistance of a prudent, willing and loving helpmeet,—and a man without a true wife, "a perfect woman, nobly planned, to warn, to comfort and command," might as well stop living at once,—has become "very forehanded," and tastes his well-spent, well-earned substance with com-

fort and thankfulness. All the neighborhood has changed and improved. The farms are well kept and trim, the orchards free from rubbish, the lands cleared of stubble, white fences displacing the crazy old boards, ornamental trees, clean, comfortable barns and cosy white houses,—everybody taking pride in their homes and surroundings, just because one man of thrift, energy and taste, appreciating the object of living, choses to enjoy a neat, comfortable, and consequently, attractive and pleasant home.

Why is it that farmers keep such shocking and doleful-looking horses? To be sure, they keep them for work, but what makes them appear so bony and troubled, even when young? Show me a plump, bright horse, and in its owner I'll show you a man with a generous heart. Ah, Fleetwing! happy is memory to recall thy swift-footed virtues. May thy shadow never grow less!—and it never will while my host possesses thee.

Isn't it singular how differently people live? Now that I'm dwelling upon it, I must tell you how a class of Uncle Sam's children, called "mountaineers," exist among the Ossipee mountains, whose heights my eyes rest upon daily. We rode over and about one of the mountains one afternoon, and it is truly marvellous that, so near the cities, people can be found so barbarous, and really prefer being so. About twenty-five families exist among these hills, literally "like pigs." They live "from hand to mouth," the men walking many miles from the mountains to work on the adjacent farms, returning at evening; the women and children,—and they are just as thick and brown as blackberries,—pick berries all day upon the hills, walking many miles to sell them. They are never happy away from their mountain homes, and will hurry back when night comes, with all the ardor of a lovesick swain. A man in Moultonville, one of the villages in the town of Ossipee, hired a mountaineer for a time, and brought him home one Sunday night! When the family arose in the morning, the fellow had cleared for his mountain nest, so homesick had he already become. Another mountaineer had the use of a farm offered him at Ossipee Corner. He moved upon it and into a nice, comfortable house, but the wife, in a week, wept herself sick and useless, and he was forced to return to their mountain hut. Their children are as ignorant and nearly as wild as savages, and it is only within a few years that a school has been established among them, with faint success. It is kept in some home shanty, and the session continues six weeks. This suffices for a year. They clan together closely, living and quarrelling among themselves. One can scarcely ever be engaged to work alone,—they must labor in company. Other men's society is uncomfortable and makes them dumb. If one or a party be engaged for the morrow's harvesting, Farmer John never depends upon them till they appear. May be they do not choose to work when the morrow comes; perhaps some one has offered them a few more pence for the day. They never hold themselves responsible for any inconvenience they occasion the farmers who are obliged to employ them, as laborers are scarce. They are obliged to start by daylight from their huts to get to work early enough, and they breakfast at their employer's table, yet so unreliable are they that their breakfast is seldom prepared till they appear. They are employed for one dollar per day,—two during haying,—and faithful workers they are too. This is their redeeming quality. They are thoroughly destitute, having no ambition to better their condition. It is a practice with farmers having discontented wives to take them among the mountaineers on a visit,—a wise and shrewd stratagem, for the fretted women always return apparently satisfied with their cares and condition. And these ignorant mountaineers reside in New England, where education is as free as water and civilized modes an established fact. They cannot read a newspaper, and scarcely know the meaning of politics. Yet they can exercise the right to vote, without understanding or appreciating the privilege, while the most intelligent women in the republican United States,—even Mrs. Julia Ward Howe or Mrs. Livermore,—are not allowed to do so.

Everything is being done to keep down the price of hay, now forty dollars per ton. Fortunately corn is abundant, and it has been equal in price with hay, ton for ton. Potatoes are excellent and plentiful,—good tidings for the poor. But apples will be few and expensive; cider ditto. Last fall cider was literally as cheap as water, for at a fire not far distant, where the streams and wells had been dried up by the drought, a quantity of cider was freely used and property saved that had been fired in seven places.

SUSIE C. VOGL.

Pleasant View Home, Tamworth Iron Works, N. H., Sept., 1871.

THE LOVE OF DIRT.

The love of dirt is among the earliest of passions, as it is the latest. Mud pies gratify one of our first and best instincts. So long as we are dirty, we are pure. Fondness for the ground comes back to a man after he has run the round of pleasure and business, eaten dirt, and sown wild oats, drifted about the world, and taken the wind of all its moods. The love of digging in the ground (or of looking on while he pays another to dig) is as sure to come back to him as he is sure, at last, to go under the ground, and stay there. To own a bit of ground, to scratch it with a hoe, to plant seeds, and watch the renewal of life—this is the commonest delight of the race, the most satisfactory thing a man can do. Let us

celebrate the soil. Most men toil that they may own a piece of it; they measure their success in life by their ability to buy it. It is alike the passion of the *parvenu* and the pride of the aristocrat. Broad acres are a patent of nobility; and no man but feels more of a man in the world if he have a bit of ground that he can call his own. However small it is on the surface, it is four thousand miles deep; and that is a very handsome property. And there is a great pleasure in working in the soil, apart from the ownership of it. The man who has planted a garden feels that he has done something for the good of the world. He belongs to the producers. It is a pleasure to eat of the fruit of one's toil, if it be nothing more than a head of lettuce or an ear of corn. One cultivates a lawn even with great satisfaction; for there is nothing more beautiful than grass and turf in our latitude. The tropics may have their delights; but they have not turf; and the world without turf is a dreary desert. The original garden of Eden could not have had such turf as one sees in England. The Teutonic races all love turf; they emigrate in the line of its growth. To dig in the mellow soil —to dig moderately, for all pleasure should be taken sparingly—is a great thing. One gets strength out of the ground as often as one really touches it with a hoe. Antæus (this is a classical article) was no doubt an agriculturist; and such a a prize-fighter as Hercules couldn't do anything with him till he got him to lay down his spade and quit the soil. It is not simply beets and potatoes and corn and string-beans that one raises in his well-hoed garden; it is the average of human life. There is life in the ground; it goes into the seeds; and it also, when it is stirred up, goes into the man who stirs it. The hot sun on his back as he bends to his shovel and hoe, or contemplatively rakes the warm and fragrant loam, is better than much medicine. The buds are coming out on the bushes round about; the blossoms of the fruit trees begin to show; the blood is running up the grape vines in streams; you can smell the wild flowers on the near bank; and the birds are flying and glancing and singing everywhere. To the open kitchen door comes the busy housewife to shake a white something, and stands a moment to look, quite transfixed by the delightful sights and sounds. Hoeing in the garden on a bright, soft May day, when you are not obliged to, is nearly equal to the delight of going trouting. Blessed be agriculture! if one does not have too much of it. All literature is fragrant with it, in a gentlemanly way. At the foot of the charming olive-colored hills of Tivoli, Horace had a sunny farm; it was in sight of Hadrian's villa, who did land-scape gardening on an extensive scale, and probably did not get half as much comfort out of it as Horace did from his more simply tilled acres. We trust that Horace did a little hoeing and farming himself, and that his verse is not all fraudulent sentiment. In order to enjoy agriculture, you do not want too much of it, and you want to be poor enough to have a little inducement to work moderately yourself. Hoe while it is spring, and enjoy the best anticipations. It is not much matter if things do not turn out well.—*Charles Warner.*

For the New England Farmer.

BABY BELLE.

BY JENNIE E. CHENEY.

Pure as a lily, sweet and white,
Folding its petals from the night,
Sleepeth our darling—Baby Belle;
When will she wake? Ah! who can tell?

She lieth so hushed, so calm and pale!
My kisses lift not the lids that veil
The violet eyes, in their deep repose,
And her cheeks are chill as the winter snows.

The Shepherd was calling long and late
Last night, outside my garden gate;
I heard—but I barred the door so fast,
And wearily wished the night were past.

Though never so hard, he should beg to hold
This lamb of mine, in his arms so cold—
She is all my own, to keep and love;
God needeth her not, in His Heaven above.

So the night wore on, while I grieved and wept,
But my darling smiled as she softly slept.
Did she hear in her dream, the voice so sweet,
Of one who waited with patient feet?

I shut my ears to the gracious cry,
And begged and prayed that He might pass by;
Yet this morn I rose, with a heart full sore,
The dim, shrouded Watcher had entered the door.

OUT-DOOR CELLARS.

Perhaps some of your readers are not aware how cheaply they can make out-door cellars which answer a good purpose in storing all kinds of roots. Not having a cellar to my barn, and raising several hundred bushels of roots which I wished to feed to cattle and sheep in the winter time, the idea occurred to me to make a cellar in a bank convenient to both the barn and the shed.

As it was an experiment with me, I thought I would make it as cheap as possible, so if there was failure there would not be much loss. It was dug out eight feet wide, sixty long, and six feet deep. The bottom was rising from the entrance to the rear end, so water would flow out, though from the nature of the ground it is not liable to overflow, and has never troubled in that way.

No walls were laid up but merely a roof put on. That was made of chestnut poles for rafters, the lower end being put in the ground to the depth of a foot. The pitch of the roof was made very steep, and the poles or rafters were put in touching one another, and the tops spiked together. Then rye straw was

laid on thick, in courses, as you would thatch, and on top of that two feet of earth, well packed and sodded. The lower end was double boarded and straw packed between, and the door built in the same way.

The cellar was built three years ago, and keeps roots as good as can be desired, and never leaks or freezes. It cost nothing to me but the labor and the price of a few nails and boards for the end.—*Cor. Rural Home.*

NATURAL SELECTION.—Disburdened of circumlocution and all extraneous details, his (Darwin's) argument takes this shape: Because by select breeding, and the accumulation of small modifications through many generations, men have succeeded in producing from the beautiful and handsome wild rock pigeon, such a monstrosity as the English pouter, represented in Mr. Darwin's work; therefore, it may be concluded that God—no, not God, but an abstraction callled "Natural selection," acting without intentional or special guidance, may, by a similar accumulation of small modifications through countless generations, have formed the human species from some other species of an inferior grade in the organic scale. This analogy is not only weak but false. It would have been more accurate to have argued that because man had succeeded in degrading the wild rock pigeon into a pouter, natural selection might, by an accumulation of small modifications, have degraded some abnormal, inferior specimen of the human species into a gorilla.—*The Beginning: Its When and its How, by Mungo Ponton, F. R. S. E.*

DON'T BE DISCOURAGED.—Many think they never saw such discouraging times. The young people probably never did; but we old ones have seen much worse. In 1816 I commenced farming on my own hook. I had just got married, and was full of courage. The spring was dry, and we got in our crops in good season. On the 6th, 7th and 8th of June it snowed each day, and a sleigh passed my house in Lancaster, N. H., for the village, on the 8th. Not a bushel of sound corn was raised in the north of New Hampshire or Vermont, nor a bushel of ripe potatoes except Early Blues, and most of the wheat was frost bitten, and hay crops light; yet nobody starved, all were healthy and received the bountiful crops of 1817 with thankful hearts and good appetites. The year 1835 was another hard time—harder than this, for people were poorer, and means of transport less. I repeat, don't be discouraged. Trust in Providence, keep trying, and all will come out right.—*John H. Willard, of Wilton, in Maine Farmer.*

—Improved lands in California are lower than they were three years ago.

AGRICULTURAL ITEMS.

—The Woodstock, Vt., *Standard* says that Ivory L. Vaughan of that town has this season raised 53½ bushels of fine winter wheat from two acres.

—Over 28,000 acres of land were taken by homestead and pre-emption at the Vermillion, Dakota, land office, during August.

—It is estimated that nearly $300,000 worth of tobacco will be raised in Jefferson Co., Wis., the present year, providing past prices are obtained.

—About 1000 acres of flax were sown in the vicinity of Morning Sun, Louisa Co., Iowa, this spring, and is now being harvested. It proves a valuable crop.

—There is a cheese on exhibition at Buffalo, weighing 3000 pounds, the product of one day's milking of 2200 cows, yielding 30,105 pounds of milk.

—A correspondent of the Green Bay *Advocate* writes from Edgerton, Rock county, Wis., that tobacco in that region is clearing, for those who raise it, from $75 to $150 per acre. Growers get from 13 to 19 cents per pound for the leaf.

—The Rochester (Minn.) *Post* says that probably one-third of the crop of 1870 in Olmstead county, Minn., was lost by careless or bad stacking, or not stacking at all, before the wet spell which succeeded the harvest,—an actual loss of half a million dollars to the farmers of the county.

—Dr. Randall, in the *Rural New Yorker*, counsels a "new departure" as to Merino sheep, now that interest in them is revived. He thinks the production of excessive quantities of gum, the constant housing and the unnatural pampering and forcing of the sheep should be discouraged.

—A good harness blacking is made of four ounces of hog's lard, sixteen ounces of Neat's-foot oil, four ounces of yellow wax, twenty-nine ounces of ivory black, sixteen ounces of brown sugar, and ten ounces of water. Heat the whole to boiling, and stir it until it becomes cool enough to handle, then roll it into balls about two inches in diameter.

—Mr. Cyrus Brown, of Lincoln, Mass., was 83 years old July 2, 1871, yet works regularly upon his farm, which is located southeast from the centre of the town, and on the 7th of August, cradled oats steadily one-half of the day, and a few days later, handled the same tool from morning till night, working as many hours as his hired man.

—Opposition to the use of machinery in agriculture does not so often assume the form of violence as in some of the trades. English papers report a case, however, in which an attempt was successfully made to break a new mowing machine by driving iron bars into the meadow, leaving about three inches above ground.

—An exchange says that a fire proof fence can be made by following these directions: "Make a wash of one part fine sand, and one part wood

ashes, well sifted, and three parts lime ground up with oil, and mix them well together. Apply this o the fence with a brush—the first coat thin, the second thick. This adheres to the boards or planks so strongly as to resist either an iron tool or fire, and is, besides, impenetrable by water.

EXTRACTS AND REPLIES.

WHITE-WASHING TREES.

I would like to ask the New England Farmer's Club if whitewashing fruit trees in spring is of any benefit to the trees? T. B.

Addison County, Vt., Sept., 1871.

REMARKS.—Injurious or not, we should never advise it to be done. A thousand times better thing would be to wash them with strong soap suds. That would tend to kill insects, soften the bark, so that the trees may be easily scraped, if one wishes to make them look a little more neatly, and the suds that drip upon the ground about the roots will be an excellent fertilizer.

A tree is an organic living thing; always in action in greater or less degree. In many particulars it may be fairly compared to our own bodies. There is undoubtedly action going on, all the time, through its bark, because the bark has interstices containing cells, and these cells are filled with juices of varying qualities.

Will not a coat of whitewash, spread over the bark of a tree, impede its action, and if so, injure the tree?

How would a coat of whitewash operate on the skin of a man? The skin is full of pores, or holes, which must be kept open in order to preserve health. Indeed, it is said that if a coat of varnish, or other substance impervious to moisture, be applied to the exterior of the body, death will ensue in about six hours. The experiment was once tried on a child at Florence. On the occasion of Pope Leo the Tenth's accession to the Papal chair, it was desired to have a living figure to represent the Golden Age, and so a child was gilded all over with varnish and gold leaf. The child died in a few hours. If the skin of a pig be covered with a solution of India rubber in naptha, the animal will cease to breath in a couple of hours.

If, then, the tree lives and acts partly by the agency of its bark, it would seem that coating over that bark, so as to exclude the external air, would be injurious to the tree.

To our eye, it is bad taste to whitewash a tree. It does not look badly on a fence, a pig pen or even a house, but on a tree it makes a hideous object in the landscape.

BOOK ON GRAPE GROWING.

I wish to learn what treatise on grape culture affords the best directions as to the selection of varieties, mode of cultivation, and general management of the vine and its produce. J. T. M.

Carver, Mass., Sept. 25, 1871.

REMARKS.—A few years ago there were several treatises on grape culture published. W. C. Strong of Brighton, Mass., wrote a book of 356 pages, for which a large price, we think, $3 was asked; Geo. Husmann of Missouri wrote a book of 192 pages, for one dollar, which appears to be the details of his own practice. Two or three translations of European Works with notes by American editors have been printed in this country. We do not feel competent to advise which is the best.

FIFE AND RED AUSTRALIAN SPRING WHEAT.

I saw in the FARMER an account of some wheat raised in Vermont, and now enclose a few heads of two different kinds, raised by myself. The bearded wheat is called the Fife wheat, and is a very extra kind. The bald wheat I received from the Department of Agriculture, Washington, (a small package) called Red Australian spring wheat. I think it an excellent kind and very productive. From eight common sized bundles I obtained half a bushel. S. M. BAKER.

Hillsboro Bridge, N. H., Sept. 16, 1871.

REMARKS.—For size of ears and plumpness of kernel your specimens are somewhat superior to those from Vermont. Your land was probably the richest, as your straw indicates a more vigorous growth. We congratulate you on your success in wheat raising and thank you for the fine specimens of New Hampshire wheat to compare with those of Vermont.

RULES FOR USE OF BAROMETERS.

I saw in the NEW ENGLAND FARMER a request by a correspondent for a few simple practical rules as a guide to farmers in the use of the barometer. Numerous suggestions and rules are given by writers on the subject, which are worthy of careful consideration, some being valuable; but, after all the rules and directions of others are read and pondered, a personal and careful record of the changes of the height of the mercury in tne tube of the instrument, as they occur each day, will benefit the observer more than mere rules and printed directions. Still they are useful in drawing conclusions, if applied at the right time and the results of directions carefully observed.

The pressure of the atmosphere sustaining a column of mercury is due to the weight of air and the moisture it contains. Heat and cold also effect changes in the height of mercury in the tube of the barometer—heat causing the column to rise, and cold to fall, in that instrument as well as in the thermometer; therefore to render observations of the instrument perfect, it is necessary to reduce it to the freezing point by means of the attached thermometer, which indicates the temperature of the mercury in the barometer. Some instruments, like those manufactured by J. Green of New York, are fitted with a mechanical contrivance for doing this, but for common barometers, a table of numbers to be added or subtracted from the observed height, as the attached thermometer indicates a higher or lower temperature, is necessary; else, reading the observed height without applying the reduction the mercury would seem to be rising when actually falling; at times apparently presaging a storm, or standing at rest, when reduction would show coming changes in the weather. Tables suited to various kinds of barometers are published by the Smithsonian Institute. I use the "Woodruff barometer," manufactured by Charles Wilder, Peterboro', N. H., and having noted the results of observations of the instrument, will merely give a few general rules by which I am guided in using

it, and shall be glad if by doing so I may benefit any one. I think—

1. That changes of weather at different seasons of the year affect the barometer differently.

2. That winds from different quarters sometimes have great influence on the barometer, and it should be observed when changes occur in the direction of winds.

3. During the summer months, a slight fall of the mercury is indicative of rain; a continued fall of some days indicates continued rain; a sudden or great fall, heavy showers, of short continuance.

4. There being an average, or mean, between the highest point the mercury occupies and its minimum or lowest, any change below or above the mean indicates approaching fowl or fair weather, according as the mercury rises above or falls below that point.

5. In winter, the rising of the mercury indicates frost and greater cold, or falling snow.

6. Fogs often cause a slight fall of the barometer; the atmosphere being over saturated and containing water in a disseminated liquid state.

Whitefield, N. H., Sept. 27, 1871. L. D. K.

REMARKS.—On behalf our correspondent who made the inquiry that has drawn out these practical suggestions for the use of an instrument with which many farmers have had a rather unsatisfactory experience, we wish to thank "L. D. K.," who we may be permitted to add is one of the observers employed by the Smithsonian Institute.

BLOODY MILK FROM A HEIFER.

A neighbor of mine, Mr. Isaac Smith, who maintains a large herd of dairy cows, has one heifer that has given bloody milk from one part of her udder for six weeks past to a greater or less degree. What is the cause, and how can it be remedied? D. W. H.

Barre, Mass., Oct. 5, 1871.

REMARKS.—Prof. Law, Veterinary Lecturer of the Massachusetts Agricultural College, in reply to a similar inquiry, remarks, that *redness* of milk has in some cases been traced to feeding on certain plants, for instance madder, and intimates that this may sometimes be mistaken for *bloody* milk. But as only one cow in Mr. Smith's herd is affected, the trouble cannot therefore be ascribed to anything in her food, and probably the milk is tinged with blood. Supposing this to be the case, "what is the cause, and how can it be remedied?" We do not know the cause of the bloody milk in this case. Bloody milk is often caused by the garget,—is often one of the first symptoms or effects observed of that disease. Rough milking, or too much pulling on the teats in stripping, will cause bloody milk, probably from the rupture of some of the delicate veins. Great fatigue, as being chased by dogs or boys; a weak or poor state of the blood; a kick or blow on the udder or adjacent parts; stepping on the udder by other animals, while the cow is lying on the ground or in the stable,—are among the causes that produce bloody milk. It may also occur in connection with Bloody Water, and a tendency to periodicity has been observed in connection with the recurrence of rut or heat. The remedy, then, should be adapted to the removal of the cause, whatever that may be. If the heifer has been abused by dogs or boys, apply a good hot poultice to them, instead of doctoring her; if she has been milked by stripping her teats between the thumb and finger of a stout man, change that treatment to a more reasonable practice; if caused by poor blood and a weak state of the system, give a nourishing diet, says Dr. Law, with a course of tonics, say, three grains of carbonate of iron and half ounce of powdered ginger, daily for a week. If the bloody milk is the forerunner of the garget, direct your treatment to the cure of that disease the best you know how, or if caused by external injury adopt such preventive and curative measures as your best judgment may suggest.

In many cases of slight trouble of this kind iodine has proved beneficial. Make an ointment consisting of one part of iodine to twelve parts of lard, and rub it in on the parts of the udder affected. For ordinary cases of garget one of our correspondents recently recommended one ounce of Hydriodate of Potassium dissolved in one pint of soft water. Dose for a full-grown cow, one large spoonful, mixed with a little bran mash, twice or three times a day, according to the virulence of the disease. This medicine should be used with caution, as it has a tendency to dry up the milk.

HOME FOR A WESTERN MECHANIC.

I wish to get a little advice in regard to buying a home. I am a mechanic, 25 years old, and have lived in the West about eight years; three years of the time farming, the rest of the time working at my trade. My home at the East was within a few miles of Boston, and old New England will always seem very dear to me. My capital is $1500, and I wish to know if I can get started on a comfortable home in Massachusetts with that amount. Eastern papers that I see, advertise many desirable places for sale, at what seems to me to be cheap prices and easy terms. I am well aware that the soil of many of these places may be pretty well run out; but can they not, by a good system of cultivation, be made capable of producing good fair crops?

I would like to know the amount of money that it would be necessary to invest in stock and tools on a small farm there for raising ordinary farm crops. I believe that soiling is the system for New England, where tillage land can be had, as the markets are excellent and manure valuable. My objections to a home in the West are several. I have not capital enough to buy an improved farm here, and if I had, the improvements on a western farm are generally anything but desirable,—poor fences, poorly built houses, stables "shingled mit straw," and no barns. To get cheap land, I must go where I must deprive myself and family of many privileges; and improving a new place is costly work, especially where money brings ten to twenty per cent. interest, as it does in the new States.

I suppose Horace Greeley would discourage me from turning my face eastward, but I think I won't say anything to Horace about it. An answer to the above in the FARMER would greatly oblige

A BAY STATE BOY.

Wisconsin, June 27, 1871.

REMARKS.—As you and your family are personally strangers to us we have no idea of what would constitute a "comfortable home" to you

here. But if you ever lived "within a few miles of Boston" you must be aware, notwithstanding all the gloss of advertising land agents, that $1500 will go but little ways towards paying for what is considered a good, well stocked farm in Massachusetts. After living elsewhere for a few years, New England people seem to forget the unpleasant of their old homes here, and to cherish recollections only of what was agreeable. Somehow the past becomes poetry, and distance lends enchantments that are seldom realized on their return. The loved valleys seem narrower; the hills higher, nearer, and steeper; the rocks bolder and more rugged; and the soil thinner and poorer than they remembered them. Were you to return after your experience with the West, we fear you would be disappointed, and perhaps wish yourself at the West again. At least, we have known several cases where the "homesick" instead of being cured was aggravated by a return to New England. Our advice to you is to do just as you think best, with little regard to the opinion of Horace Greeley, the NEW ENGLAND FARMER, or any other man that knows nothing about you.

BARNS—BARN CELLARS AND TYING UP CATTLE.

I wish you would inform me through the FARMER what the best way is to tie up cattle in the barn, and give me any hints on points of convenience in a barn and barn cellar?

JOB N. CORDELL.

Tiverton Four Corners, R. I., Oct. 1871.

REMARKS.—Having tried nearly every way that has been devised for tying up cattle in the barn, we are convinced that the common upright stanchion is, all things considered, the best. It is not so easy for the animal as a chain or the old-fashioned bow, but it is safer, keeps the cattle cleaner, and is the quickest and easiest way of tying them up.

A barn should be constructed to afford the most conveniences for the objects to be gained. If for cattle alone, do not cut it up into small rooms, but leave as much large, open space for stowing away hay, as possible; good-sized bays, running from the floor to the side of the barn. Have as few scaffolds as possible, and let the one over the leanto be seven feet high, so that you can walk in it without stooping or bumping your head, if you are standing up. In framing, the carpenter can mortice the floor timbers and let the sleepers fall two or three inches, so that the cattle can stand a little below the level of the main floor. Then feed from the floor before the cattle, which is far better than boxes or troughs of any kind. If they stand a little lower than the floor, they can reach their food easily, and the hay or grain, or meal, can be pushed to them with the rake head. The floor does not become wet or dirty as boxes are apt to.

Have a good cellar under the whole barn, as it costs no more to put a roof over two rooms than it does over one. With a tight cellar, the barn will be warmer in the winter, and will be found very convenient for storing carts, tools, roots, &c., and also for pigs upon the manure, if the cellar is light and ventilated.

For the want of a little care and foresight, barns are quite often constructed so as not to afford the conveniences which they might, with the same amount of room and the same cost.

LOW LANDS.

This year the hay crop is a small one in New England. Many reports confirm this conclusion, although in this town and vicinity the crop is satisfactory, the fall feed abundant, and the second crop of clover on land recently sown to grass has been mown by myself and neighbors, making quite an addition to the mows.

I have about eight acres of land that lies in the bottom of this valley, [Black River, we suppose—*Ed.*,] which is nearly a dead level. There was no channel for a water course, and when the snows melted in spring, or when the heavy fall rains came, the surface drainage of about five hundred acres flowed upon my low lands. I have dug an open ditch through this meadow most of its length, but left a few places not ditched so that the water will flow the whole meadow when it is abundant and not hurry away too rapidly in the ditch.

I find this low land excellent for grass, yielding a heavy crop of natural varieties. One kind called "blue joint," grows five feet high, with a head resembling redtop and a stock like rank timothy. Another kind is a flat grass, apparently without seeds.

I find this meadow a great help in filling the barn, yet I have been very slow in clearing it up. It was covered with alders. I cut, piled and burned them and since mowed the annual growth. A part not thoroughly cleared is in pasture, and some of it is still covered with a growth of ash and alders. My intention is to subdue the whole soon.

In Vermont there are many acres of such land. It is of rich, mucky soil and yields a heavy crop of weeds, bushes or grass. If partially cleared and then neglected a year or two, it looks more forbidding than at first. A fire will seldom run over such land, but every thing must be picked and piled.

My experience teaches me that it pays to reclaim these low lands, as I find that whether the season is wet or dry, I can calculate on about two tons per acre of hay of fair quality. On this meadow the grass roots are so strong that a horse can safely travel on the surface, though beneath is a deep muck bed. The portion pastured comprises about three acres, and I pasture it so close as to prevent its going back into wilderness, while I am waiting for time to clear it thoroughly for the scythe. My cows made $25 worth of butter from that small pasture. They were put in July 19th, when the weeds and grass were rank and tender. I ought to sow grass seed on this land, being confident it would be better than to trust to nature alone for the seeding. But the proper course is to clean it up. Let those of us who own such land work upon it this fall and improve it, and we shall be better able to meet dry seasons as they come with their blighting influences. Z. B. J.

Irasburg, Vt., Oct., 1871.

HOW WAS THE FARM IN ESSEX COUNTY MADE PROFITABLE?

The question is often asked, "Does farming pay?" and it is often answered in a general way that it does, and some particular farm is quoted as having afforded a very large income. The last question of this kind that has come to my notice was asked and answered by Mr. B. P. Ware of Marblehead, at the County Fair at Ipswich, the other day. He says that "men had grown wealthy

on the farms of Essex county," and alludes to one that was purchased thirty-five years ago for $4000, the gross products of which had amounted to $10,000 per annum.

Now will Mr. Ware give us a history of this farm, its location, the kind of crops that are raised on it, the amount of money that has been invested in it since the first purchase, the cost of carrying it on, and the present value of the farm, so that we may see how much should be allowed for interest on the capital invested. Such is the kind of information that the working farmer needs; not the general assertion that farming pays because somebody has obtained an income of $5000 or $10,000 from his farm in a year.

The most of farmers are accused of ignorance oftentimes, and I am sorry to be obliged to say that so far as I am concerned as one of the number, the charge is too true; still it is information that I want, in common with the rest of the working fraternity. Now, Mr. Ware is, I think, just the man to give us the desired information. I know very well that in Mr. Ware's vicinity the advantages are very much greater for farming than in any other part of the county with which I am acquainted. The large quantities of kelp that old ocean's waves are continually casting upon the shore, which cost nothing but teaming, and the location so near the sea gives a season some two or three weeks longer than is enjoyed a few miles further back. These facts, to my mind, are of no small consideration.

There is much that passes for successful farming that, in my opinion, wont bear examination. I have seen within a very short time the names of gentlemen mentioned as being very successful farmers, who, if I am not mistaken, would be very loath to publish the footings of their ledger, unless they wished to make a display of the amount of money they are willing to invest in their farm, without the remotest prospect of ever receiving a fair profit on the capital invested.

J. L. HUBBARD.

Peabody, Mass., Oct. 10, 1871.

THE FOOT POTATO.

While at my place last year your agent requested me to furnish you with a statement of my experiment in planting the eyes of a single tuber of the Foot potato. I planted them where my hens got at them and destroyed perhaps one-fifth of the crop, obliging me to dig them Sept. 6th, before they were fully grown. The yield secured was 106 pounds. I think they cannot be beat in excellence of quality.

N. HALL.

Canaan, Me., Sept. 15, 1871.

WILD CHERRY IN A PASTURE.

I think the true theory respecting the poison of wild cherry, is, that both the perfectly fresh leaves and the thoroughly dried ones are harmless, while in leaves in a *wilted* state the prussic acid is much more active, producing injurious and often fatal effects. I have known two instances where valuable animals have died in consequence of eating cherry branches in this half wilted state.

C. N. S. HORNER.

Georgetown, Mass., Sept. 9, 1871.

STACKING BEANS.

I have tried your plan for drying beans by stacking on poles, with side branches left projecting a foot or more, with satisfactory results; but last year hit upon a plan I like still better. I have a light scaffold in the roof of the barn; to this the beans were taken when first pulled, and set in small bunches roots up. Windows were usually open in each end of the barn in fair weather. In this way they dried perfectly.

L.

North Weare, N. H., Oct. 2, 1871.

For the New England Farmer.

HARD TIMES FOR FARMERS.

The times are very discouraging to most farmers at the present time. A short hay crop and the continued decline of prices for his other products, especially live stock, must more or less affect the farmer's tranquillity, if it does not even utterly discourage him and cause him to feel like giving up his calling or changing it to a more favored locality, if he can find it—which I very much doubt.

During the farmer's most prosperous times he fails to obtain as remunerative returns in *money* for his investment of capital and labor as those in other callings usually realize for theirs; and when such a decline in prices as has occurred in farm stock during the last fifteen months comes upon him, his lot is to be commiserated. If such a decline in merchandise had occurred, we should probably have seen such a financial crash as we have not witnessed in two score years last past. Very few merchants and manufacturers could withstand a decline of from forty to fifty per cent. on their goods and products; yet the farmer has had to submit to this, and stand it, too, in some way.

He has not learned the art of *compromising* with his creditors for twenty-five or fifty cents on the dollar. He expects, come what will, to pay dollar for dollar on what he owes. He will sit down to a very limited bill of fare, deny himself on every hand and work persistently and hard to bridge over, if it is possible, the chasms of insolvency and pay *all* his liabilities.

Not so the merchant. He makes the very best terms he can with his creditors, after exaggerating his indebtedness in order to secure to himself all that it is possible for him to do, and to pay to his creditors as little. Very few intend, however prosperous in after life, and however great their accumulation of wealth may be, to pay off their *old scores*, as they term them—no, not they—but the farmer *must* pay the last mite and be turned adrift to get a living as best he can, should he be embarrassed in his business for want of ready means to meet his liabilities. No compromise in his case. The pound of flesh is exacted.

It is an unpleasant picture, and we will turn away from it and see if we cannot find some alleviation from the weight of discouragement that at present surrounds us. It is a trite saying, and as true as trite, that where there is a will there is a way. A determination made in the proper spirit to surmount difficulties is often more than half accomplishing the sought-for object. The question now is, what can farmers do with their stock that have not sufficient hay and other feed to carry them until grass-growing another season? At the present low price of cattle it would be, financially, suicidal to sell it. That being so, the next question is, how to keep it so as to secure a new

cent for an old one, and some show of profit besides; for unless there is a chance for a profit it is of no use to carry the stock, but submit to the present loss at once.

How this can be done I think is most satisfactorily shown in an article you gave us on the 16th ult., written by S. L. Goodale, on Corn *vs.* Hay. In my opinion it is the most valuable contribution the farmers of New England have had placed before them for a long time. It tells them what to do and how to do what is necessary to meet the present emergency in their affairs. It is indeed difficult to conceive how any thing more concise and yet embracing the whole question, could be set before us. I would advise every one interested in feeding stock to ponder its suggestions well and see if they cannot find it for their interest to carry out some if not all its suggestions.

As a supplement to Mr Goodale's article, I would recommend saving all the corn fodder in good order, cutting it fine and feeding with wheat bran, shorts or corn meal. I have known large stocks to be wintered and also carried through the spring in good order until grass grew.

For several years I used a hand machine, constructed on purpose for cutting corn fodder, and found time on stormy days to keep a supply on hand for use when the weather allowed outdoor work to be done.

Sept. 20, 1871. K. O.

For the New England Farmer.

FRAMINGHAM FARM NOTES.---No. I.

BY A. A. FORBES.

This town has long been noted for its enterprising farmers, men of means and energy, who spare no pains or expense in improving their farms and their stock. I propose to send you a few notes of observations made among them, which may be of interest to the readers of your paper.

Sturtevant Bros.

These gentlemen own a large farm situated about half a mile south of the village of South Framingham, which they have occupied for six or seven years, and which they have greatly improved in that time. Their barns are large and convenient, and are furnished with power for watering stock, cutting feed, &c., by means of a windmill of the "Continental" pattern which works admirably. They make the breeding of Ayrshire stock a specialty,—their large stock being entirely of that breed,—most of them being imported within the last two years. The specimens which they exhibited at the late Fair of the Middlesex South Society attracted much attention and received most of the premiums awarded to this breed at that show.

The bull "Malcom," now eight years old, is of most excellent stock and won himself honor at the New England Fair, through a son and daughter there exhibited,—both sweepstake animals. He is dark brown and white, has a head too large for beauty, though characteristic of the family, and skin of remarkable clearness. His son McMalcom much resembles him, and though the property of J. R. Kendall of Woburn, was bred by the Messrs. Sturtevant, and is now with them on loan for a few months.

Another bull "Imported Mains," is nearly white. "Queen of Ayr," his dam, is red and white, and is stated by the owners to have given 9014 pounds of milk the year after her importation.

Of the eight cows exhibited at the late Fair, seven were grazing in Scotch pastures a little more than two years since, and they have all the characteristics of choice Scotch animals. It is well known that in the home of the Ayrshire, the udder is a chief point of interest. It is required to be square, capacious, well forward, and full, as looked upon from behind. But this is not sufficient,—the cow of this dairy breed must not only show an udder perfect in form, but a capability in the animal to fill it with a rich quality of milk.

"Model of Perfection" (a name given in Scotland under which she won many premiums at home,) has the model udder, which Ayrshire farmers admire. She cost Messrs. S. $1,000, and this will give some idea of their appreciation of her quality.

The cow "Georgie," has different excellences; is more delicate of form, less symmetry, but a certain air that makes many prefer her to "Model."

The four other cows which I will not specify by name, are splendid animals, and creditable specimens of this breed of cattle. The two-year-olds, yearlings and calves, of which they possess a large number, are of good promise.

The herd of Messrs. S. are not in high condition, but appear in just the state of flesh we should expect to find in a herd occupying the stalls of a good dairy farm. These animals are considered by their owners too good to be styled "fancy," and they dislike that term to be applied to really useful stock.

Though Sturtevant Bros. make a specialty of Ayrshire, they by no means confine themselves to this branch of business. "Excelsior" is their motto in every department.

The limits of this article will not permit me to speak at length of the other stock upon their farm. I will only say that Messrs. S. are extensively engaged in the Poultry business, having a large number of the improved kinds, and took the first premium at the late Fair for the best ten coops of Fowls.

—California boasts that she has the largest orchard in the world. It is located two miles south of Yuba city, in Sutter county, and consists of over 400 acres.

TOWN FAIRS.

There is much to be said in favor of town fairs. They begin, where all government of republican form professes to begin, with the people themselves. They are managed honestly and economically, and the premiums are awarded to the most deserving, without fear or favor. The farmer competes with his neighbor farmer, instead of the importer of fancy cattle, or the nurserymen or green-house men, or some wealthy speculator's English gardener. Everybody, at a town fair, feels that he has an equal chance, and is encouraged to do his best this year, and if his neighbor excels him now, may readily learn the reason, and improve his own practice.

We were forcibly impressed with these ideas at the seventh exhibition of the Agricultural Society of Chester, N. H., on the 3d of October. Chester is one of the famous old towns of the Granite State, which has been in times past the home of two governors, a chief justice, a senator in Congress, and two or more judges, as well as of the gallant General Bell, who fell at Fort Fisher.

The high culture of the people a half century ago naturally led them to take an interest in the improvement of their stock, their gardens and their orchards. The town has been long famous for its fruit culture, and the sale of apples has been always a source of great profit to the farmers.

The fine shade trees which shelter an excellent sidewalk for more than a half mile on the principal street, and which surround most of the houses, show at once that the citizens have found time and means to do something more than earn a bare subsistence, and the exhibition of this year indicates clearly that the present inhabitants intend fully to sustain the reputation of their good old town.

Although the skies were threatening, it was evident at a glance that the most of the population of the town, with many persons from abroad, had taken an early start for the fair. A team of forty yoke of oxen, many of them large and excellent, formed a prominent feature. They were attached to a wagon in which Bond's Band, from Boston, took a short excursion, discoursing excellent music. Mr. Bond, the leader of the band, is a native of Chester, and took an active interest in the occasion. Some excellent cows, some fine young Devon cattle, and good specimens of swine, sheep and poultry were among the outdoor attractions. The crowd was, of course, soon gathered about the music wagon, and the people began at once to exercise their inalienable right of hearing speeches. Mr. Adams, of the Manchester *Mirror*, was requested to mount the wagon, and he entertained the audience with his usual good sense and humor for a few minutes. The editor of the NEW ENGLAND FARMER was next called out, and then Judge French, who is also a native of Chester, greeted his old townsmen with some cheering remarks. The crowd cheered the speakers, the band struck up "Auld lang syne," and we adjourned to the town hall to see the rest of the exhibition. The show of fruit was excellent, the apples, pears and grapes being equal in quality to any we have seen at any county show. The town is peculiarly adapted to the grape, being situated upon the highest elevation between the ocean and the Merrimac river.

Although in most places on our drive across the country from Concord, Mass., we had observed that the grapes were ruined by the frost, we found the leaves at Chester were still as green as in August, and the fruit safe on the vines, probably for some weeks. The Isabella usually ripens perfectly on these hills, and the tables have as fine bunches of the Concord and Delaware as we have ever seen. A prominent feature of this exhibition was found in the assortment of garden seeds, nicely cleaned and arranged and labelled. This is an element of our agricultural exhibitions which should everywhere be fostered. The importance of good seed grown by responsible persons cannot be overrated.

Among the excellent vegetables we noticed several varieties of seedling potatoes. One which was marked "Chester Seedling," four years from the seed, very closely resembles the Peerless in size and shape. It has, however, reddish eyes, and is said to be later. It may prove a very valuable sort.

The show of vegetables was very full, the only criticism which occurred to us being that they were too large. We are always gratified to see, side by side with the mammoth products, specimens of convenient, useful size for every day table use. The ladies contributed a beautiful variety of needle-work and wax flowers, as well as of dairy products. Indeed, we were glad to see the ladies everywhere present and

active at the tables, and in the dining-room, over which they presided in an upper room.

In the evening the hall was again crowded almost to suffocation, and the standing audience listened attentively to the voices of various speakers, and the music of the band, till the President, at nine o'clock, announced the close of the fair.

ORCHARD GRASS.

Among the many interesting articles which were exhibited at the Attleboro, Mass., Fair, which we examined, but failed to notice in our brief report of that exhibition last week, were six specimens of Orchard Grass, or "Rough Cocks Foot," grown this year by A. W. Cheever, Esq., Sheldonville, who at the close of the exhibition there, very kindly sent them to this office, where they can be examined by any one interested in this grass, who can make it convenient to call.

On the 11th of April, 1871, Mr. Cheever seeded a piece of land with Orchard Grass, at the rate of two bushels of seed per acre; the seed weighing fourteen pounds and costing $3 per bushel.

A specimen of this grass which was cut July 1st, is labelled No. 1. It is from two to two feet and six inches in length, has a "rowen" look and is quite fragrant.

No. 2 is from hay made on this field from grass cut from the 1st to the 7th of August. The leaves are wider than those of No. 1, the stalk more fully developed, and to the touch, as well as to the eye, it is a little rougher and coarser, but still excellent hay.

No. 3 is a specimen of second crop, cut September 18, on the part of this field that was mowed August 1. This is about two feet in length, and considerable clover in the blossom is mingled with it. It is as sweet as a rose. And just here, perhaps, is one of the long-sought-for secrets of gilt-edged butter, and one of the reasons why Mr. Cheever has taken so many first premiums on butter at the Fairs in his county, and why he is able to secure customers for all he makes at prices considerably above the market rates.

To contrast with this early-cut grass he exhibited three specimens that had gone to seed.

No. 4 is a sample of Orchard Grass cut June 20th, on land that had been mowed three years. It is headed out and is from two feet to two feet six or eight inches high.

No. 5, sample of the same cut July 1. This also had gone to seed, and is somewhat taller than No. 4.

No. 6 consists of a few stalks that grew in a rich hollow by the side of the road, cut July 1st. It is from four to five feet six inches high, with stalks better adapted to sucking cider than to cattle fodder.

Though none of the three last named samples were cut later than July 1st, and one of them as early as June 20th, yet all of them had stood quite too long, as they look more like parcels of straw than like the fine grass hay of Nos. 1, 2 and 3. Mr. Cheever remarked that they should have been cut as early as the tenth of June.

These samples illustrate better than could be done by any mere statement, the early maturity and other peculiarities of this grass, and suggest reasons for the different conclusions as to its value at which different farmers have arrived who have tried it. The early maturity of this grass, as shown by these specimens of it that were over-ripe on the 20th of June, unfits it for cultivation as hay with varieties which ripen several weeks later, and is a peculiarity that should not be overlooked.

CORN FODDER.

Mr. L. A. Gilbert, says in the *Maine Farmer*, that he has grown corn for a dozen years or more, and fed it to his cows as the pasturage failed in August and September, and thought he knew that the flow of milk corresponded with the armful of green corn, whether large or small. But as some of his neighbors did not believe it was worth raising, and as Dr. Loring, "the man who can make three hundred and sixty-five speeches in a year, and withal say a great many good things," denounced it as the most worthless stuff ever fed to cows, he determined to test its value more carefully. He gives the following statement of two experiments:—

August 9th, a two-year-old heifer in milk was then being fed at night, after running in a pasture where there was but little feed, with a feed of poor hay and two quarts of barley meal. The daily average yield of milk was nine pounds thirteen ounces. The hay and meal were dropped off and a feed of green corn substituted. The amount of corn was not weighed, but was a moderate armful weighing probably fifteen to twenty pounds. After two feeds of corn, the milk weighed ten pounds six ounces per day and remained at about those figures as long as weighed.

A cow at the same time was running in the same pasture, and received a feed of the same quality of hay, but no meal. Her daily average quantity of milk was nine pounds three ounces. After two feeds of corn it increased to ten pounds fourteen ounces, and remained at about these figures.

For the New England Farmer.

A CHAPTER ON WOUNDS.

Farmers, and the several domestic animals with which they have to do, are liable to suffer from wounds of various kinds, and it is highly important that every person should understand the best methods of treating them.

Wounds are called *incised, lacerated, contused, punctured, poisoned, or gunshot*, according to the manner in which they have been produced, and the nature of the cause which has produced them. These several varieties require different treatment, to a certain extent, but whether occurring in man or beast it should be the same.

INCISED WOUNDS are those caused by a simple division of the fibres with a sharp cutting instrument. In such cases, the lips of the divided parts are more or less separated, according to the extent of the injury, and the surface is covered with blood.

In the treatment of incised wounds, there are four indications to be fulfilled: 1. To arrest the *hemorrhage* or flow of blood; 2. To remove foreign bodies if there be any within the wound; 3. To bring the divided parts into apposition, and keep them in union; 4. To promote adhesion.

To arrest the hemorrhage, moderate pressure, an elevated position of the wounded part and the application of cold water will be sufficient in most cases. But if the bleeding prove obstinate, other measures must be adopted. And now this important question arises: does the blood come from an *artery* or a *vein*? When arteries are punctured or divided, the escaping blood will be of a bright florid color, and will flow rapidly in jets; but when veins are divided it will be of a much darker color, and will flow less rapidly, gradually filling the wound.

If then, an *artery* has been injured, no time should be lost, but the bleeding vessel must be *compressed* without delay; and the best method of doing this will depend on the part of the body or limb in which the wound is situated. If the injury is below the middle of the upper arm, or the middle of the thigh, the compression can best be made by means of a *ligature*, which may consist of a handkerchief or a cord of almost any kind; this should be passed once or twice about the limb and tied securely. A stick may then be passed beneath the ligature and twisted until the flow of blood is arrested. It should be remembered that when an *artery* is wounded, the ligature must always be placed *above the wound;* that is, between the wound and the heart, because the arteries carry the blood from the heart to the extremities; and if the wound be below the elbow or the knee, the ligature should be applied *above those joints*, because that below them are *two bones* which protect the arteries against compression, whereas above them there is but *one bone*, and therefore the blood vessels are more easily compressed. But if the wound is situated high up on the arm a ligature will do no good, and therefore a bystander should at once press his thumb firmly into the neck *behind the middle of the collar bone*. This will arrest the flow of blood through the great artery of the arm as it first comes out of the chest. But as it will not be possible to continue the pressure for a long time with a sufficient degree of force, simply with the thumb, the *handle of a door-key* or some such article, should be wrapped in three or four folds of linen and used in place of the thumb. In this way the hemorrhage can be kept in check until a surgeon can be obtained. If the wound be high up on the thign, compression should be made by means of the thumb or a key *immediately below the crease of the groin*, where the beating of the artery may be felt as it passes over the bone. If the wound be situated on the skull, upon the face, or over any bone of the body, the bleeding may generally be arrested, for a time at least, and sometimes permanently, by pressing the thumb, a finger, a cork or any other firm substance that can be conveniently applied, directly upon or near the wound. But if the blood comes from a *vein*, the compression, if any be needed, should always be made *below the wound;* that is, between it and the end of the limb, because the veins convey the blood from the extremities back to the heart. However, in most instances in which small veins are wounded, a little pressure and the free use of cold water will stop the hemorrhage. Various articles called *styptics* are sometimes used to check excessive bleeding. The tincture of muriate of iron, a solution of alum or of copperas, and creosote are among the best styptics.

The removal of foreign bodies should be done as soon as possible. Dirt, gravel, &c., are best got rid of by affusion with water; but most other substances can be removed best with the fingers. All clots of blood should likewise be removed, or they will act as foreign bodies and prevent adhesion. In order to bring the divided parts into apposition and keep them in union, strips of adhesive plaster are best, when the wound is not very deep nor the sides of it much disposed to separate; but when there is considerable depth to the wound and it is disposed to gape, stitches—*sutures*, in surgical language—should be employed; and for such a purpose, farmers and others who keep domestic animals should also keep on hand one or two curved surgical needles.

To promote adhesion nothing is needed but to keep down inflammation, and that is best done by rest and the moderate application of cold water. The popular idea that a wound will not heal without the assistance of some wash, liniment, ointment, or salve is pure nonsense. Wounds are healed by virtue of a law of nature, and such applications, while they can do no good, may do much harm.

LACERATED WOUNDS are those in which the skin and other tissues are more or less torn and displaced. They bleed much less than incised wounds, but in other respects they are far more serious, being more liable to inflame and slough and occasion constitutional disturbance.

The treatment should consist: 1. in restraining the hemorrhage by the several means recommended for incised wounds; 2. in removing all foreign bodies; 3. in bringing the parts together as well as may be, albeit there should be no straining with plasters or tight bandages. A cloth dipped in cold water, or a soft poultice, or a poppy fomentation, may be applied to the wound, according to the feelings of the patient; and rest, a low unstimulating diet, and a proper attention to the bowels, should be strictly observed.

CONTUSED WOUNDS are caused by some blunt instrument, applied with such a degree of force as to break down and destroy the vitality of the tissues. The process of restoration is, therefore, quite different from that which takes place after incised and lacerated wounds. Inflammation, to a considerable extent, must be produced; *sloughing* or the separation of dead parts by a process of ulceration will take place, and granulations will arise to fill up the cavities occasioned by these separations.

The treatment of this class of wounds should consist in facilitating the separation of the contused parts by fomentations, poultices, and the like, until the sloughing or separating process is completed; and then the fomentations and poultices must be abandoned, and the parts approximated by adhesive plaster. The wound should now be dressed with *simple cerate*, or a salve composed of *resin*, five ounces; *lard*, eight ounces; *yellow wax*, two ounces. The bowels should be kept regular, and if the constitution becomes much debilitated, wine and other tonics, with a generous and nutritious diet, must be employed.

PUNCTURED WOUNDS are such as are caused by sharp pointed instruments, like needles, nails, bayonets, &c; and are justly esteemed the most dangerous of all simple wounds. Their treatment should consist in arresting inordinate hemorrhage, if it exists, by the means already described, or by plugging the wound with lint, rags or other similar substances; and in the prevention of inflammation by rest, a plain simple diet, purgatives, cold affusions, &c. If, however, as is frequently the case, there is much severe pain, *warm water* or *vapor* will be the best local application until the pain has abated.

POISONED WOUNDS are those caused by the sting of bees, wasps and other insects; the bite of the rattlesnake, copperhead, and other venomous reptiles; the bite of mad dogs, and other rabid animals; and the pricking or cutting of the hands with knives and other instruments used in the dissection of dead bodies.

For the sting of bees and other poisonous insects, cold wet clay, a piece of moistened tobacco, or a little diluted aqua ammonia, are excellent remedies.

For the bites of serpents and other venomous reptiles, the first thing to be done is to apply a *ligature* tightly about the limb as near to the wound as possible, and *between it and the heart*. Then cut out the bitten part, and suck the wound, bathing it freely to encourage bleeding. But if a *cupping-glass* be at hand, that instrument should be applied over the wound for a few minutes, when it must be taken off, and the bitten part removed with a knife. The glass should then be re-applied, in order to promote the flow of blood. The internal remedies proper in such cases, are powerful stimulants, such as brandy or other spirituous liquors, ammonia, &c.

GUNSHOT WOUNDS are such as are caused by the discharge or bursting of fire arms. They combine the characteristics of both contused and punctured wounds, and should therefore be treated on the same general principles.

It is not presumed that every person will regard himself as competent to treat all sorts of wounds in the human subject. None but educated surgeons should attempt to manage those of a severe character; and yet, all persons ought to know what are the general principles of treatment, and what to do in an emergency; and all farmers should be qualified and prepared to treat successfully the wounds from which their domestic animals are liable to suffer. J. H. STEDMAN.

West Brattleboro, Vt., 1871.

LATE SWARMS.

Every bee-keeper who allows his bees to swarm naturally will have more or less late swarms—swarms that will not gather sufficient honey to winter on. If such swarms are hived and not run back into the parent stocks, they will of course make several cards of comb, gather a small amount of honey, and the queen will lay more or less eggs. Hence in the fall there will be some brood in the combs, some honey, and all the requirements on a small scale for the building up of a good colony: but the honey harvest being past, they cannot labor, and must all perish during winter.

The question is—what is the best way to dispose of the late swarms? Some will say they should always be run back into the parent stocks; but it is not always done. The bee-keeper has been exceedingly busy, and has found it less trouble to put them into an empty hive, and when fall comes he has several stocks in the condition described above. Others would advise the taking up of such stocks and using the honey; but the small amount of honey will not pay for the waste of

comb. Others again would drive out the bees, and put them into some other stock that is weak in numbers, and save the hive and comb for next season's use; but the combs being more or less filled with young brood, which will in that case die in the combs and putrefy, they are at a loss how to dispose of it.

No doubt this last is decidedly the best plan, and where frame hives are used, the brood may all be got rid of without difficulty. All that is necessary is to take away the queen, and leave the bees queenless for twenty days. The brood will then all hatch out, when the bees may be driven out and put into some stock having plenty of honey, and the hive and combs placed in some outhouse where it is perfectly dry and cold, where the combs will become frozen during winter, which will destroy any egg or larvæ of the moth that might be in them, and next season the combs will be of great help to new swarms, and of far more value than all the honey and wax that could be got out of them. Even common hives may be served in the same way by driving out the bees, capturing and killing the queen; then return the bees, and wait as before. It is not absolutely necessary to wait twenty days, as most of the brood will have hatched in twelve or fifteen days, so that it would be safe to remove the bees and put the hives away for next season's use.—*J. H. Thomas, in Canada Farmer.*

FALL TREATMENT OF BREEDING EWES.

If the ewes have been at all reduced by suckling their lambs through the Summer, immediately after their milk has dried up efforts should be made to regain a thrifty condition by the time the coupling season commences. A sufficient reason for this is, they can be wintered easier and cheaper if put into high condition before the extremely cold and stormy weather begins. But additional reasons are to be found in the fact that they will take the ram more readily, and be more likely to get with lamb—no inconsiderable item if choice rams are used, and it is desirable to get as much service from a single animal as possible. They will shear heavier fleeces the following season, with better length and strength, than if stinted "from grass to corn."

No matter how good the pasturage, we have found it profitable to feed them one-half to one bushel of corn daily to each hundred breeding ewes, for ten days before, and during the coupling season. This was usually thrown to them in the ear, when they were through grazing, or just before sunset. We preferred this time, as the stronger animals were not so likely to injure the weaker ones by crowding, or themselves by over-eating. Under such treatment, we have from a flock of a thousand ewes, picked out and bred as many as four hundred the first week. Following this course, lambs will drop the following Spring as fast as any sheep-farmer, with but ordinary facilities, can properly care for them. "Teasers" put into the flock every morning, before turning to pasture, will, in a short time, find most of the ewes that are rutting. These can be packed out by the shepherd as fast as found, and placed in a separate pen, to be attended to while the large flock is grazing. The animals that have been bred, should be marked and kept to themselves until the entire flock has been served. This saves much labor and annoyance to both shepherd and sheep.

We have always had the best "luck," during the lambing season, with the flock that was in the highest condition in the Spring—losing the fewest ewes while yeaning, and the fewest lambs from lack of milk or refusal of dam to "own" them. And so it will be found, we doubt not, with flock-masters generally. Not only are the lambs from such ewes worth double as much as the increase from a flock dragged through the winter in a half starved condition, but they will not require half the labor and attention to bring them to maturity. Uniformity in the size of the different animals in a flock can be secured in no other way so readily as by liberal feeding and proper attention during the coupling and yeaning seasons. —*West Rural.*

SHEEP-HERDERS IN CALIFORNIA.

In an article giving an account of the great sheep runs of California, the *Western Rural* says that the Sheep-herders, or those who have the care of those large flocks, are, as a class, the most worthless, morally and socially, the most unprincipled, reckless and collapsed company of vagabonds to be found in any civilized country, unless it be Australia. One man had employed, in a single year, a bishop's son, a banker, a civil engineer, a priest and a bookkeeper as shepherds, all of whom had been banished by their friends or by themselves for their "country's good." Altogether they are the riff-raff of the world; vagrant miners, who gamble away their month's wages as soon as they draw the same; runaway sailors from ships in San Francisco, who sell their blankets for a pillow case full of biscuits, and then get never a pinch of grub for two days; measly, old, groggy soldiers, who fall asleep under a live oak, and let the coyotes pull away a lamb. The good old Bible word "Shepherd" is not heard in California, it is either "wool-grower," "ranchero," or that most cumbrous and absurd "sheep-raiser;" and for the man who does the work, he is a "sheep-herder." And when a man gets so low down as to be a "sheep-herder" in California, he would better go and dig a hole in the ground, insert his head therein, and ask some pitying friend to cover it up. He is lower than a Greaser, for this is the Greaser's natural busi-

ness that he was born to, and he is, therefore, respectable. Greasers and vagabond sailors together have brought the same contempt on sheep herding here that the "niggers" have on all manual labor in the South.

EXTRACTS AND REPLIES.

BAROMETERS.

From the good old days of John B. Russell, Thos. G. Fessenden, Geo. C. Barrett, &c., I have been a subscriber and reader of your weekly, which is always looked for and eagerly perused. Very seldom do we see in it anything which is not readable and instructive. Now I ask leave to suggest to you to invite some one who is capable and experienced in the matter, to write a code of plain and simple rules for observing the variations of the barometer, so that every one who feels an interest in such things may know how to anticipate approaching changes of the weather. Farmers, every one of them, ought to have in their house a barometer and thermometer just as much as a clock, and should understand the use of them as well. A few simple rules easy to be understood by the common people, would induce almost every resident in the country to possess one of these useful instruments, which might in the course of a year save them many times its cost. M.

Lauderdale, Mass., 1871.

REMARKS.—Directions for the guidance of those who use barometers have been published; but if any one can, from his own experience and observation, furnish any more practical and simple rules and directions than those which usually accompany good instruments, or which are to be found in ordinary works on meteorology, we shall be happy to communicate them to the public.

TOMATO WORMS.

Are those large worms found on tomato vines poison if they bite? This question has been raised of late by finding them on my own vines, and learning that they were very numerous in this vicinity, and that much fear exists by reason of a general impression that to be bitten by them is certain death. There is a prevalent notion that these caterpillars throw a spittle which, if it comes in contact with the flesh, is equally poisonous.

While at the New England Fair, last week at Lowell, I saw a collection of insects by H. M. Hutchinson, of Lowell, Mass., and in conversation with him was shown the moth said to be the mother of those worms. I remarked that we were finding them very plenty on our vines, and that many feared that we should be bitten by them. Mr. Hutchinson replied that they were not poisonous; that he had handled "bushels of them;" they never bite, but do throw a juice or spittle, which he had received on his hands and even on sores on his fingers, but never was poisoned by them. He said that he knew a man that had eaten them to prevent starvation. He also said that there was a small fly, of a green color, I think he said, found on tomato and potato vines that was poisonous, the bite of which had been mistaken for the worm. Now if those worms are not poison, and never bite, it ought to be known, as it would relieve many from cruel fear and anxiety lest themselves or their children be bitten by them. Shall we have this subject investigated? ALEX. S. PHELPS.

Sharon, Vt., Sept. 11, 1871.

REMARKS.—Your friend, Mr. Hutchinson, is undoubtedly correct as to the harmlessness of the tomato caterpillar. "Worms," toads and snakes are much abused creatures. They are badly slandered and much disliked by almost every body, while birds are popular favorites. Yet they are all God's creatures, and, notwithstanding our prejudices, each performs its appointed part in the economy of the universe.

About two years ago the Syracuse, N. Y., *Standard* published an article on the authority of a certain Dr. Fuller, of that city, in which it was stated that:—

"This worm was first discovered this season, and is as poisonous as the bite of a rattle snake. It poisons by throwing spittle, which it can throw from one to two feet. The medical profession is much excited over this new enemy to human existence. Three cases of death in consequnce of this poison have been reported."

This statement made a capital sensation item for the newspapers, few of which stopped to question its truthfulness. In the first place this caterpillar has been well known to entomologists for about half a century. It is described by Harris. It belongs to the *Sphinx* family, and we suppose it to be the caterpillar of theFive-spotted Hawk Moth figured in the FARMER of August 26.

The following remarks by Benj. D. W. Walsh, editor of the *American Entomologist*, may serve to allay the "cruel" and perfectly unfounded fears and anxiety to which our correspondent alludes: Dr. Walsh says, "Why or wherefore it is impossible to say, but this poor unfortunate tomato-worm has been selected by the popular voice, out of about fifty others belonging to the same family and found within the limits of the United States—all of which have a similar horn growing out of their tails—to be falsely accused of using this horn as a sting. The tomato-worm and the tobacco-worm are as like as two peas, and produce moths which resemble each other so closely that entomologists for a long time confounded them together. Each has exactly the same kind of horn growing on the hinder extremity of its body; yet while the tomato worm is generally accused of stinging folks with this horn, nobody, so far as we are aware, ever yet said that the tobacco-worm would or could do so. The real truth of the matter is that neither of them can sting, either with its tail, or with its head, or with any part of its body. Yet not a season elapses but the newspapers publish horrible accounts of people being stung to death by tomato-worms, and earnestly recommend those that gather tomatoes to wear heavy buckskin gloves. These stories, however, have been contradicted so flatly and so often, that latterly the penny-a-liners have struck off upon another tack. Tomato-worms, it appears, do not sting with the horn that grows on their tails, but they 'eject with great violence a green caustic fluid from their mouths to a distance of from three to fifteen inches!!' Now what is the real truth about this matter? Tomato-worms do really discharge from their mouths, when roughly handled, a greenish fluid, and so do the larvæ of almost all moths, and so does every species of

grasshopper with which we are acquainted, and so do many different kinds of beetles. But it is not true that they can spit out this fluid even to the distance of a quarter of an inch, much less to the distance of fifteen or even of three inches; and especially it is not true that the fluid is poisonous. If it were so, we should have been in our graves long ago; for we have had it repeatedly daubed over our fingers, but without the least ill effects therefrom, and so have scores of other entomologists in this country."

Of the green fly spoken of by Mr. Hutchinson we have little knowledge. S. Hayes, M. D., of Saranac, N. Y., published a statement of a patient of his who was bitten on the thumb while handling tomatoes, by a green fly, which caused the thumb to swell as large as three or four thumbs, the swelling extended to the hand, arms, glands in the hollow of the arm, and finally to the head, and even the side of the body, causing much pain. The insect had a long bill and legs something like a mosquito. The bite of a mosquito has occasionally caused much inconvenience.

WHAT AILS THE FRUIT TREES.

The query of your correspondent in the FARMER of August 19, suggests a longer communication than I have time to write, or probably you the patience to publish. Nearly a quarter of a century of fruit culture has convinced me that our system is, at least a great deal of it, utterly at war with vegetable growth.

Take for example a pear tree, as bought and delivered, naked trunks from two to four feet high, a shining mark for disease. All should *branch from the ground*. I believe it to be impossible to keep a tree with a long naked trunk healthy for any considerable length of time. Probably not one fruit tree in ten is properly set; *i.e.* the ground in proper condition to receive the tree. Then add to this neglect, with one or two years' over stimulation, and we have all the elements necessary to kill anything that grows.

The object sought in planting a fruit tree, is to get fruit, and *a system* is as essential in this connection as in any matter of business. We must watch and wait. After planting, the tree should be sustained by judicious application of compost; very *rarely* should the knife be used, and the saw as often as it is on the human family, and for like reasons. A tree under the most favorable conditions for its perfect development will continue to grow until it arrives to a certain size, say twelve to eighteen feet, the variety governing this to some extent, without showing a strong tendency to fruit. This growth should be encouraged. Be sure and get at least nine inches of new wood every year. Sometimes it will be four times that, *but get the growth*. Neglect will throw it into fruit. This normal growth is the strongest guarantee of life.

Trees are no exception to the law that governs growth in all things. They must grow or die. If a young tree sets its fruit, pick it all off, or leave one or two for a specimen, if desirable. *Let the tree grow.* When it is in a condition to properly ripen the fruit, the indication will be plain to almost every one. Nearly all trees are benefited by thinning the fruit, say from one-third to one-half. It improves the size and quality in a wonderful manner, and this means pleasure to the tongue, and money in the pocket, if the fruit is sold. Plant a small, low branched tree, in well prepared soil, give it as good care as you do your vegetable garden, though not as much stimulation, and my wrod for it, you will not be troubled to any great extent with dead limbs. L. W. PUFFER.

North Bridgewater, Mass., Sept. 4, 1871.

HOW TO GET RID OF ANTS.—*The Boston Journal of Chemistry* gives several plans of getting rid of ants in gardens; entrap them by means of narrow sheets of stiff paper, or strips of board, covered with some sweet sticky substance. They will then be attracted and will get stuck fast. When you have caught a goodly number you can kill them and set the trap again. Or lay fresh bones around their haunts; they will leave everything else to attack these, and when the bones are well covered with them they can be dropped into boiling water. If you wish merely to drive them away (with the prospect of having them settle elsewhere within your own borders) a few spoonfuls of coal oil put into their retreats or a few slices of raw onion buried there, will be taken by them as a strong hint to migrate. If ants are troublesome in the pantry, or other parts of the house, wet a sponge with sweetened water, and when a large number of ants are in it, throw the sponge into hot water and squeeze it out. Then wet with sugar water again, and go on so.

CHESS.

The growth of chess among winter wheat has long been a mystery to me, and I have endeavored to watch as closely as possible the circumstances of its production. Some four years ago, as I said in my last communication, my wheat crop was nearly a failure. Believing that what little I had, although very poor, would answer for seed, I sowed it by the side of good seed; supposing that if the yield from the poor seed was not as great as that from the good seed, there would be no more chess in it. In this I was disappointed. There was much less chess among the good seed than among the poor. This satisfied me that chess is more likely to grow from poor than from good wheat seed. I have also noticed that where I have sown wheat on green sward there was more chess than when after corn, because, as I suppose, the compost applied to the green sward is not evenly spread, and the turf not being decomposed, some of the plants do not get hold of the needed nourishment, for a proper growth of the plant in the fall, and, something like a stunted calf, it is not fully developed, and turns to chess. Another cause of wheat becoming chess is the freezing and thawing of the ground in fall and spring, which by weakening the roots checks the growth so far that chess instead of wheat is the result. The present season I have more chess than usual among my wheat, which I ascribe to the warm spells last winter and spring, followed by sudden freezing; much bare ground; little rain, and a cold spring, causing the abortive growth of the wheat that results in chess.

From my own experience, then, I would advise farmers to sow the best seed they can obtain. Chess ground with wheat gives the flour a dark color. After running my wheat through a winnowing mill, I take the wheat in a half-bushel measure, when there is a steady, strong wind, and holding as high as I can reach, sift it slowly into a tub; the chess and imperfect wheat is separated from the good. Whatever is thus blown over should be saved as it makes good provender for hogs.

Two years ago I gave a part of my seed wheat a thorough cleaning, and a part was sown full of chess. At harvest time there was, as far as I could

see, as much chess on the land sown with clean seed as on that sown with the foul. Where I have winnowed my wheat I find grass springs up very thick from seeds dropped, but though the ground may be covered with chess, none grows. For these reasons I conclude that chess does germinate and grow like the seeds of other plants.

M. L. GOODELL.

South Amherst, Mass., Sept., 1871.

REMARKS.—Most of the men who are learned in the science of botany deny that wheat ever turns to chess. They claim that wheat and chess are as distinct in their vegetable characteristics, as cattle and sheep are in their animal diversities. They say that as like produces like, it is as absurd to believe that chess grows from stunted wheat as to believe that by any process of stinting or abusing a calf it will become a lamb. On the other hand farmers have observed facts which satisfy many intelligent minds that the wheat plant, under some circumstances, developes itself in the form of chess. There has been a great amount of discussion in agricultural papers on this subject with the usual result of such discussion—both parties remaining "of the same opinion still." The botanist, Darlington, ridicules the American belief in the change of wheat to chess, by saying that in the old world farmers believe that wheat sometimes changes to rye, at others to barley, as well as to chess; and that in its turn chess becomes oats!

A few years ago some speculator advertised and sold at a high price certain grass seed called Willard's Bromus. Many farmers were induced by the Norway-oat style of puffing adopted by the "agent" to try it, among others the managers of what was then called the State Farm of Massachusetts at Westboro, all of whom raised a nice crop of chess! We suppose therefore that our sensible correspondent must be mistaken in his idea that chess seed—*Bromus secalinus*, of the botanists—does not germinate and grow like that of other plants.

WINTER SUCCOTASH.

Can you or any of your readers give through the NEW ENGLAND FARMER, a good recipe for succotash for winter use? T. L. WEBBER.

Dedham, Mass., Sept. 1871.

REMARKS.—We gave directions a few weeks since for preparing corn for winter, by boiling, cutting the kernels from the cob and drying them, and now will some of the good cooks that read the FARMER, reply to the above inquiry.

CURE FOR FOOT ROT IN COWS OR SHEEP.

Put a tablespoonful of pulverized blue vitriol in half a pint of kerosene oil and mix well. Apply a little of this to the affected parts once a minute for ten minutes. One or two such applications will cure the worst cases in cows or sheep.

A SUBSCRIBER.

Starksboro, Vt., Sept. 15, 1871.

PASSION-FLOWER.

I notice in most of florist catalogues the Passion-flower advertised as rare and fine. It grows wild hereabouts, and produces a singular and beautiful flower. I will send a few seeds to any that will enclose a few cents for postage, and to pay for collecting the seed, &c. The seeds should be sown, I imagine in the fall, as it seems to propagate itself. SAM'L CLARKE.

Hick's Wharf, Va., Aug. 27, 1871.

REMARKS.—This is not hardy in our New England climate, and will not flourish here as it does in East Virginia, as an out-door plant.

WIRE FENCE.

I would like some information through the columns of your paper in reference to the utility of wire fence. Is it efficient against cattle and horses? What is the best mode of construction and the cost? Where can the material be obtained? Would it be a profitable investment?

GEO. WALTER.

Woodstock, Vt., Aug. 29, 1871.

REMARKS.—Some twenty years ago there was much said in the agricultural papers of New England about wire fences. Near Boston, where fencing stuff is expensive, where no stock is allowed to run at large, and where, in fact, but little is kept any way, wire was experimented with considerably. A railroad, over which we pass frequently, put up quite a strip of wire fence on one side of the track, using a large wire, frequent posts, and the best workmanship in the wire fence line we ever saw. After a year or two, boards were nailed on to those posts without removing the wires! All the cheaper structures that we have seen have proved failures as a fence.

If others can make a more favorable report we shall be glad to publish it for the benefit of Mr. Walter and others who have fences to build or to support.

SEASON AND CROPS IN ILLINOIS.

We have had and are having an unusual dry season. There has been no rain of any account since the first of June. Wells are dry, the feed is all parched up, and cattle suffer a great deal. Oats and wheat were good, but the corn crop in this county will fall far behind an average, for the dry weather and chintz bug have used it up. Some of the fields are black with the pest, which have so far injured the corn that it will hardly make good fodder for cattle, but we have to feed it to them now, as grass is all dried up. Farmers are getting their ground ready for fall wheat, but will wait for rains before they sow. V. B. REYNOLDS.

Greenville Co., Ill., Sept. 8, 1871.

BASSWOOD FOR PUMP LOGS.—The Rochester, N. Y., *Rural Home* says that Mr. George W. Root, a successful farmer of York, Genesee County, who keeps 80 or 90 head of cattle, from 300 to 400 sheep, merinos and Leicesters, which clipped over six pounds of wool the past season, and who sold his lambs at three months old for $4 each, carries water to every field on the farm in logs, and also to the house, stables and yards. The logs, of which there are 300 rods, are basswood saplings cut on the farm, and although they have been down over nine years are to all appearances as sound as when laid. Mr. Root claims that basswood is the best timber for this purpose, as it soaks full of

water, and timber constantly saturated, it is well known, is very durable.

DR. SHURTLEFF'S SEEDLING PEARS.—Last year we had the pleasure of testing three varieties of some forty which this gentleman has originated on his grounds in Brookline,—all of which we considered worthy of further cultivation,—viz: the Gen. Grant, Shurtleff's Favorite and one unnamed.

We have recently received specimens of three others of his seedlings. The *Gen. Sherman*, resembling in appearance the Bartlett, of a lively, good flavor; the *Admiral Farragut*, a large, good looking fruit, but rather too ripe to test its qualities as an eating pear, and the *Rev. John Cotton*, of good size, rich, fine flavor, melting, and somewhat buttery.

For the New England Farmer.

THE WEST, AS I SAW IT.

BY JOHN DIMON, OF POMFRET, CONN.

MR. EDITOR:—Having just returned from a six weeks' tour through the far West, undertaken with a view of gaining all possible information in regard to that portion of our great country, I have thought that some of your readers might be interested in a few extracts from my journal.

July 18th I left Pomfret, Conn., and on my return, August 31st, I find I have travelled during my absence upwards of 4000 miles. I went to Chicago by way of the Pennsylvania Central Railroad, and passed through some splendid farming country in Pennsylvania and Ohio. The farmers in Pennsylvania were then (July 19th) engaged in securing their oats, of which they had a very heavy crop, and were using four horses to a machine in cutting. Their hay crop had been all secured, and the aftermath was starting up very promisingly. Some parts of Pennsylvania resembles my part of Connecticut very much in the lay of the land, but their farms are all fenced with rails instead of stone walls. Saw large quantities of tobacco growing near Parksburg, Chester Co., in which is some very good farming land. West of Parksburg the streams become Westernized in their limy or muddy appearance, and even the "*Blue* Juniata" is not at all blue but muddy. Now good bye, clear, sparkling, dancing streams of New England, until my return. You are seen neither at the West nor in the sunny South, though the sons and daughters of New England in exile miss you more than any thing else they left behind. We may find more fertile fields and sunnier climes, but nowhere on the face of the globe can we find the crystal springs and bubbling brooks of New England.

I saw many fine looking and well cultivated farms in Ohio. Their crops, herds and flocks look well, but the lack of the thrift and enterprise of New England is attested by the appearance of their farm buildings. Much of the western part of Ohio resembles Canada very much, in its surface, timber and farm buildings. Ohio is a good sheep State, and the recent rise in wool has given a new impetus to the business, increasing the price of store sheep about 50 cents per head.

I reached Chicago July 20th, and passed on to Monmouth, Ill., 179 miles south-west of that city, and 18 east of the Mississippi, at Burlington, where I have friends and relatives. This is the residence of my genial friend, James Bower, the acknowledged horse man of the West. In traveling from Chicago to this place I ride through miles of growing corn, averaging from nine to twelve feet in height, and promising a yield of from 50 to 75 bushels per acre. Wheat and oats are also good, and farmers are very busy in securing the latter crop, as well as in cutting and securing their hay, which is very heavy. The morning after my arrival at Monmouth I accepted an invitation from Samuel Hillis, Esq., of this city, to visit his farm, about five miles south. He has a field of corn containg 460 acres, averaging about 11 feet high, and I should judge bids fair to yield 60 bushels per acre of good sound corn. Corn is now worth here 30 to 35 cents, and quite dull at that, and it is thought that the new crop will not sell for more than 20 cents.

From Monmouth I cross the river at Burlington, and go West over the Burlington and Missouri Railroad, through a splendid farming country embracing the second southern tier of counties in Iowa. At Villisca, Montgomery Co., I cross the Nodaway River by stage, through leagues of mammoth corn and grass, and up its valley 15 miles to Clarinda, the shire town of Page Co., where I was met by my old friend and relative, C. A. Aylsworth, Esq., who has a farm four miles south, on the Nodaway bottom, which contains 331 acres, nearly all bottom land, with a soil three feet deep on an average, of the very richest quality of this rich land. He has a field of 95 acres corn from 12 to 15 feet high, and estimated to yield from 75 to 90 bushels per acre. This land will produce immense crops for at least one century, without manure. This is a good farming country, but is a little off from railroads at present.

Land here is worth from $15 to $40 per acre; corn from 28 to 30 cents, with the prospect that new corn will be sold at 15 cents. Beef cattle are worth 3 cents per lb., live weight, for Omaha and Council Bluffs markets. Farm labor worth $20 per month, with board. I saw people here from Connecticut, Rhode Island, Vermont and Illinois, engaged in farming. All crops are good except spring wheat, which has been nearly destroyed by the chintz bugs. Spring wheat is not considered a certain crop here anyway. Neither do I believe winter wheat can be relied on. I think corn and grass converted into beef and pork will prove most profitable. South-western

Iowa is a good farming country, generally well watered and healthy.

From Clarinda I go west to Red Oak Junction, in Montgomery County, on the East Nishnabotany River, a place of 2000 inhabitants and only two years old, located on the Burlington and Missouri Railroad, 39 miles east of the Missouri River. This place is exceedingly well located for the centre of a good agricultural community, and land is fast settling up around here, and is worth from $10 to $50 per acre, by the farm. The society here is a little rough and rum by far too plenty.

For the New England Farmer.

HARVESTING CORN.

I have read the very flattering approval of my article, "What is the best method of harvesting corn," by C. E. Kimball, and also his mode of procedure, which is unobjectionable; but as it varies somewhat from my own, I will, at his request, furnish a more detailed statement of my method.

I commence as soon as the corn is found to be well glazed, even though the stover may be green. Take five rows of corn at each cutting, using the middle row to set the stooks upon, which, instead of using any implement, are set about hills, which has a tendency to support the stook in case of severe winds. Begin cutting by taking the first hill in the middle row and place it against the second hill, around which the hills are placed until the stook is sufficiently large, which in corn of good size, will usually be found to be three hills from each of the five rows, so that the stooks will be the distance of three hills apart. Continue cutting, unless there be a wind sufficient to prostrate the stooks, until a good portion of a field is cut, before binding at all. In this way perhaps less time is occupied than by the method pursued by Mr. Kimball. When ready for binding, procure a bundle of rye straw, clasp the top, or rather near the top of the stook, lightly, with the left arm, over which, with the right arm, break the tops of the stalks and bind tightly with the straw, and the operation is performed. Some, however, prefer to use two bands, as mentioned by Mr. Kimball, but I have been unable to discover any advantage resulting from the additional labor.

The corn being cut, is allowed to stand until sufficiently cured, and which, if properly and carefully placed when cut up, will be effected with but little injury to the stover.

When about to cart, a man takes a knife and rapidly passes along each row of stooks, severing the stalks of the hill about which the others are placed; he is followed by the cart, which is an ordinary hay rack, upon which the stooks are placed, with the butts alternating, so as to keep the load well balanced, and which can sometimes be increased in width, so that the butts may be put out both sides. In this manner the entire load must be thrown off with the fork, which takes more time than the method employed by Mr. Kimball.

I was very much gratified in reading the article of Mr. Kimball, as it has confirmed my previous belief that among the great benefits of an agricultural paper are the opportunities it affords practical farmers to give expression to their experiences, and in which can be related the different modes of practice adopted by all, which can be compared and the better method adopted. W. H. Y.

Columbia, Conn., Sept., 1871.

For the New England Farmer.

THE ENGLISH SPARROW.

Several articles that I have read in the NEW ENGLAND FARMER indicate doubt in regard to the usefulness, or otherwise, of the English sparrow in gardens.

For twenty years I was surrounded by the "Finches," which include the Robin, Linnet, Nightingale, Lark, Redstart, Hedge, Ground and House Sparrows; the three last taking their names from the places in which they build their nest; they all live on the same kinds of food, but having habits that are dissimilar they are regarded with more or less favor, as the prejudice or interest of individuals may be affected. All the birds I have mentioned live on seeds, fruit and insects, never on buds of fruit trees, except when in unusual cold winters the soil is covered with snow so as to cut off all means of obtaining their natural supply of food,—seeds and insects.

The House Sparrow is, especially in and near to large towns, far more numerous than the other birds I have mentioned, and hence it is that amateurs in such localities are so much out of temper with them in the fruiting season, and for the same reason the market gardener dislikes them.

The aversion manifested by cultivators of the soil for the house sparrow more than for the other varieties of the finches is not because they destroy any kind of seed or fruit the others do not, but because of their prolific, voracions, persistent and pugnacious nature.

The Robin is as pugnacious and intrusive as the sparrow, but prejudice protects him; he is discreetly bold, is round chested and of beautiful color, not more than a quarter as large as the American robin and with soft and pleading voice. In winter, he comes to your door and sweetly pleads for help, and woe to the cruel boy who dares to injure "poor Bob." For similar reasons, the other birds I have mentioned, though they eat fruit and seeds, are respected; the form, color, and particularly the song of these win regard and inspire love; but the house sparrow, poor fellow, call him Ishmael, for every man's hand is lifted against him; he is destroyed without mercy or regret, and he seems to increase in

about the same proportion means are used to exterminate him.

In winter, boys are encouraged to destroy the house sparrow by any means they can; in spring and summer they take the young from their nests, as many sometimes as a hundred from the eaves of a single house, cut off their heads and take them to the Church Wardens of the parish; these officers have corporate power over the temporal concerns of the sections in England called parishes, and as a reward for the industry of the boys they give them one farthing per head.

In the southwest of England the gardener spades up his land in February, and the birds become useful in eating insects, just as they had been in the fall and winter in eating the seeds of weeds. In March the gardener and farmer begin to pay for services rendered. By this time wheat is above ground; by the twenty-fourth day onions, carrots, parsnips and lettuce seed have been sown; as early as February, on southern borders protected on the north, potatoes were planted in drills, radishes were sown broadcast over them and straw put on to protect all; this being removed by day, forwards the radishes, and in March the sparrows are as busy with them as they are with the wheat now just above ground; and now for the farm and garden boys, from early morn till dark, in the dry, bleak wind of March which chaps the hands and face until the blood is seen on the surface of both; in father's old coat with sleeves rolled up and tippet around the neck, with cap drawn down over the eyes, he continues to clap, clap, clap with his wooden clappers, and hoarse with continued vocal performance he cries perpetually "Holloa, holloa there, I will with my clappers, knock you down backwards, for stealing my master's corn."

Now it is that the poor boy gets sixty cents per week for his vigilance in preventing the poor sparrow from taking his pay for eating up insects and the seeds of weeds, and the war goes on; the sparrow is industrious in his work of self preservation, the farmer and gardener equally so disposed, and in the end each lives by effort and dies in good time to relinquish the strife which for ages has been bequeathed from father to son; but who can demonstrate that the sparrows devour of good seed and fruit equal to what they save by destroying injurious seeds and insects?

Poor house sparrow! His constantly excited chirp, chirp, chirp; his noisy quarrels and pugnacious disposition make him disliked, and his voracity and fruitfulness make him in spring and summer a pest to the farmer and gardener; but in fall and winter, in a general sense, he is a great blessing, the balance is certainly in his favor. But as "the dog that gets a bad name seldom loses it," so the sparrow is hated by the force of tradition and prejudice, while the other varieties of small birds, because of their retiring habits, their plumage or their song, are general favorites; but remember, they all live by destroying insects, seeds and fruit. JOHN FLEMING.

Sherborn, Mass., Sept., 1871.

FARM ROADS.

Every farm of considerable size, if compact in form, should have a substantial road through it. This should be so arranged as to afford access to most of the cultivated fields, and to the pastures. It should be of sufficient width to enable a team to turn into, or out of, with a load of hay. The gates or bars opening to the fields should be strong, so as to allow the cattle to be turned into the road directly from the barn-yard. In this case the road becomes a part of the pasture.

It would be economical to remove the surface of this road, and replace with coarse gravel at the bottom, and screened gravel at the top. When thoroughly rolled, with a very heavy roller, it would probably resist the action of wheels, so as to leave quite a smooth and easily travelled road.

If some portions of the way are of a soft and swampy character, it would be well to take off the surface until a firm bottom is reached, and then fill up to within six or eight inches of the top, with some of the stones that are in the way on the farm. If on a farm where stones do not abound, fill with old timber, coarse brush, plank, or anything which will prevent the gravel from sinking, then fill with sand, gravel, or whatever can be obtained at least cost, that will best meet the purposes desired.

For want of such a road, we have seen farms greatly disfigured. Otherwise beautiful fields were cut into unsightly ruts, and the cost of mowing and raking them nearly doubled in consequence of their existence. When it becomes necessary to re-seed such fields, the furrows are broken every time the plough passes over the ruts, and the places can only be made level and smooth by hand, with hoe or spade. If the land is to be planted and cultivated before seeding to grass, it is not of so much consequence; but still, the neat workman will be annoyed by the slovenly appearance of the field.

A good road passing through the farm is greatly needed in the spring. The ground is then soft, and the teaming to be done of the heaviest kind. Very few farmers appreciate

the weight of a two-horse cartload of green manure. An easy way of ascertaining will be by taking an old bushel basket, weigh it, and fill the basket, weigh again and empty into the cart until it is filled with such a load as is usually drawn out by the team.

Dana, in his Muck Manual, page 138, states that one cord of green cow dung, will weigh 9289 pounds! It is not unusual to see an ox cart filled with such material, to be hauled off by a single pair of oxen, and perhaps over ploughed ground, where the power to move it ought to be twice as great as on a hard road. We have often seen a common horse cart filled with green manure from the barn cellar, and taken to a ploughed field by a single horse. When there, the feet of the horse would sink to the fetlocks, and the wheels of the cart several inches into the soft soil! Still, the poor animal was expected to draw the load. On requiring a farm hand to find the weight of his loads by the "basket process," it appeared that he was hauling out about 2200 pounds at each load. Such a load would not be too much, perhaps, for a stout horse, on a hard road, but over a newly ploughed field, it was a cruel exaction.

There are other reasons why the farm should be supplied with one good road, at least. Through moist soils, ruts are soon deeply cut; this not only increases the draft, but the carts soon become coated with mud, and sometimes that coating remains on them during the entire summer—haying season and all! This injures the paint and wood work of the vehicles, and, to say the least, is no credit to the farmer.

With good private roads, then, a farmer will perform his operations at much less expense; the labor of the teams will be much easier; a greater quantity or weight of grain and other articles may be more expeditiously carried over them; manure can be more easily conveyed to the fields; the harvests can be carried on more rapidly, and wear and tear of every description will be greatly reduced.

HARVESTING BEANS.

Beans are sometimes injured by the want of proper care after they are pulled. If they lay too compactly, so that they heat a little, they acquire a musty flavor which greatly injures them. To prevent this they must be laid in such a position as to receive the sun and a free circulation of air.

Some persons set posts in the ground, in the form of a square, put rails into the post holes, crossing with other rails, and upon these lay the beans. But even upon this network they will sometimes mould, if they are piled up to the depth of a foot. Other persons hang them upon fences or lay them upon stone walls. They will dry in either of these positions, but are apt to be blown about, and disturbed by cattle, or other causes.

They will dry admirably if packed upon birch poles. Cut the poles to about eight or nine feet in length, leaving the side branches projecting some ten or twelve inches. Set the poles firmly in the ground, in holes made with an iron bar, and ram the earth about them so that they shall not be swayed by the wind.

If there is no branch on the pole near the ground, nail on a piece of board a foot and a half from the ground, then another piece across it. Upon these lay the vines, having the roots always on the inside. Fill the pole nearly to the top in this way, then hang a bunch of beans on top and tie them to the pole. In this way they will stand firmly, and become sufficiently dry to thrash out easily, and at the same time be perfectly sweet.

Another mode which was given by a correspondent of the *Rural New Yorker*, several years ago, was as follows:—Use two stakes seven or eight feet long and about two inches through. Set them in the ground about two inches apart, put a withe on the stakes eighteen inches from the ground; take a small handful of beans, and lay the roots between the stakes, so far through that the tops will not reach the ground; then a bunch the other side in the same way. After this, the *roots* only should come between the stakes, and the roots of each bunch should be laid at *right angles with those of the bunch preceding*. When within a foot of the top of the stakes, put on another *withe*, drawing the stakes together to hug the roots closely, then fill up with beans as before, to the top; then take two bunches of beans, tie the roots together and lay astride the top and it is finished.

This, upon the whole, may be the best way of stacking beans. If pulled soon after most of the leaves have turned yellow, they might

be stacked as fast as pulled. They should always be handled by the roots. When the stacks are thoroughly dry, they may be taken to the barn whole, by pulling the stakes from the ground.

AUTUMN TINTS.

Mr. H. C. SORBY, who has for some time been engaged in investigating the coloring matters in plants, has recently published the results of his researches in several English scientific works and given a summary of them in "*Nature*," from which we gather the following conclusions.

He divides the different coloring matters found in leaves as follows:—1. The *Chlorophyll* group, containing the dark green; 2. The *Xanthophyll* group, which contains, with some other rarer forms, two shades of orange common in leaves; 3. The *Erythrophyll* group, which contains a number of colors; but those met with in leaves are more or less purple, made bluer by alkalis and redder by acids; thus plants containing the same color of this group may vary much in tint by the varying amount of free acid; 4. The *Chrysotannin* group, containing many yellows, some very pale and others of a golden yellow; 5. The *Phaiophyll* group comprising the brown colors.

Thus the many tints of foliage depend on the relative amount of the various colors of the several groups mentioned. The color of green leaves is mainly due to a mixture of chlorophyll and xanthophyll, and the different shades of green is owing to the relative amount of these two primary coloring matters, and the other colors of leaves are occasioned by the preponderance of coloring matter from the other groups and the alteration by chemical action of the chlorophyll. So long as the chlorophyll remains green and fresh, the other colors are impossible, but as it disappears, the yellow color of the xanthophyll appears, and if much erythrophyll is present its color combines with the yellow and gives the scarlet and red tints. When the chlorophyll does not disappear, but is modified by acids to its dark olive form, only the dull tints come out on the leaves.

"We may thus easily understand why the special tints of early autumn are yellow and red, or dull and dark green. In these changes the various pale yellow substances of the chrysotannin group remain comparatively unaltered, and even sometimes increase in quantity; but they soon pass into the much darker red-browns of the phaiophyll group, whilst the erythrophyll fades; and thus later in the autumn the most striking tints are the brighter or duller browns, characteristic of the different kinds of plants or trees. * * * * *

"As far as we are able to judge of the various facts described, we must look upon the more characteristic tints of foliage of early spring as evidence of the not yet matured vital powers of the plant. In summer the deeper and clearer greens are evidence of full vigor and high vitality, which not only resist, but also actually overcome the powerful affinity of oxygen. Later on, the vital powers are diminished, and partial changes occur, but the affinity of the oxygen of the atmosphere is nearly balanced by the weakened but not destroyed vitality. At this stage the beautiful red and yellow tints are developed, which produce such fine effects of scenery. Then comes death, when the affinity of oxygen acts without opposition, and the various brown tints of later autumn make their appearance, due to changes which we can imitate in our experiments with dead compounds. This may not be a pleasing way of viewing an otherwise charming subject, but I think that it is substantially true."

AGRICULTURAL ITEMS.

—Mr. J. C. Oliver suggests that the bulk of butter exhibited at our fairs be protected by glass, with small samples placed so that visitors could test and examine them.

—A Western paper says that the farmers of Jasper county, Missouri, are offering their corn on the stalk at ten cents per bushel. It is so abundant that some think it will not pay to gather it.

—The newest wonder at the West is a soda lake near Rawlings, on the Union Pacific Railroad, several miles in circumference, and capable of supplying 65,000 tons of soda a year.

—The editor of the *Germantown Telegraph* says he has raised the Buerre Clairgeau pear, recently figured in the FARMER, for years apparently in perfection, judging from its size and rosy cheeks, but has never had one yet that was fit to eat.

—In a description of Robert Leeds' farm at Castle Acre, in Norfolk, Eng., Mr. Geo. H. Cook, of the New Jersey Agricultural College says, in the *Country Gentleman*, "The farm lies in the chalk district, and the soil is everywhere underlain by that substance, which is only a foot or two beneath

the surface. The land is rolling, the soil loamy, and sufficiently dry to need no artificial draining. The crop of wheat averages from thirty-two to thirty-six bushels an acre, though in exceptional seasons it has gone as high as fifty-six and even sixty bushels an acre."

—At Elmwood, Ill., recently, a threshing machine, while in operation, caught fire from the friction of the machinery, and burned up, communicating with and destroying two stacks of grain. The entire loss was about $1000.

—A new kind of fodder plant (*Gymnothrix latifolia*) has recently been introduced into France from Uruguay. It is not unlike the sugar-cane in appearance, grows eight or nine feet high, and is said to make excellent fodder either when green or cured.

—We learn from the *California Farmer*, that the Alvarado Sugar Co. bids fair to be successful in the manufacture of sugar from the beet root; having been in operation only a few months, they have consumed about 3000 tons of beets, and made half a million pounds of sugar.

—Nothing is wanting but good hives, good pasture, cleanliness and attention to insure a rich reward to those who engage in bee culture; but, says Mrs. Griffith, training is quite as necessary to the full comprehension of the occupation, as it is in the trade of a carpenter or shoemaker.

—Cover closely all cisterns, rain-water barrels, and other vessels containing water, and fill up all holes where water is inclined to stand. By thus propagating no "wiggle-tails," you will have no mosquitos. These precautions are good as a sanitary measure, too.

—A Canton, Ill., farmer says:—"I was going out past my corn crib the other morning, when I observed a large rat, with head erect, carrying a full-sized ear of corn in his mouth. At the same time his tail was wrapped around another and an extra large ear, which he was dragging behind him."

—Plough and Cultivator makers of the West, representing a capital of $5,000,000, held a convention at Chicago recently. Resolutions were adopted to regulate the number to be made, manner of putting them on the market, scale of prices, &c. It was stated that the yearly profits did not exceed 10 per cent on capital employed.

—As Henry Sargeant of Waterport, N. Y., was driving a load of grain to his barn recently, he struck one of the horses with the butt end of the pitch-fork, when the animal kicked, hitting the handle of the fork and sending the tines as straight as an arrow through Sargeant's body, killing him instantly.

—At South Sunapee, N. H., a few days since, as Mr. Asahel Lear and Mr. C. A. Maxfield were going to their work they observed a cloud of singular looking insects in the air. Their wings came off, and they fell to the ground in such numbers as to completely cover it. Soon as they fell they began to dig holes in the ground and disappear. Their wings looked like scales, and blew like dust before the wind. The insect resembled the ant in some respects. Its body was divided into three parts, its head, its corslet, which was very small and round, and its abdomen, which was as broad as long, and altogether larger than the ant. They possessed great strength, digging into the hard earth and removing pebbles several times their size with astonishing rapidity.

—In reply to a correspondent, the St. Louis *Journal of Agriculture* says, we cannot recommend you to make the raising of fast horses a *specialty* in your business. True, fabulous prices are often paid for extra fast steeds—more especially at the present period; however, if you will take the trouble to consult the experience of men who have started out on this plan, you will find they possess light purses as a general thing. Far better would it be, were you to raise fast roadsters and rapid walkers, and leave all the 2:15's and 2:20's for others to rear. English history records a fact that you would do well to ponder: Out of every thirty colts from thoroughbred stock on both sides, but *one* proves extra fast.

TREATING OLD PORK.—Old pork in summer is not generally relished; much of it is tainted, and some of it not fit to use. Now this can all be remedied, and a fesh palatable dish made of it, except where the taint is too evident.

First, soak in cold water (changing the water) till fully freshened. Then bring to a boil and boil fifteen minutes. Pour off the water, and fry for the same length of time or little less, depending on the heat. Remove the grease and cover with sweet milk. Boil down, salt a little, and finish by frying it a light brown. Be careful and do not burn, as this is easily done in the tender condition the pork is now in. It will be very tender and sweet, and have the taste of fresh pig's meat.

This, it will be seen, requires some labor. But this can be much lessened by treating a sufficient quantity at one time for several meals, as it will be equally good if "warmed up."—*F. G., in Prairie Farmer.*

GROWING POND LILIES.

On seeing my dish of pond lilies and admiring their beauty and fragrance, I asked, why is the pond lily so little cultivated?—a flower so much admired and so easily grown, and yet in many places so rare. The answer was: It is not universally known that it can be grown so easily. Many ask the question, where did you get those pond lilies? We tell them we raise them. "What, raise pond lilies?" We reply yes—raise them as easy as corn or potatoes. And, as many seem in-

terested about them, I thought I would tell the lovers of flowers how we raise ours. A few years ago my husband, seeing some growing in a distant pond so nicely and spontaneously, thought he would try them in his—a small pond of a few rods extent at one end of his field. He brought home a root and set it in. This was done by wading in barefoot, and taking it between the toes and pressing it down in the mud. It soon made its appearance above the water, and now the pond is pretty well covered with leaves and lilies, and it does not have that sickening appearance that standing water usually has, but is made the home of one of the most beautiful kinds of flowers instead. We know of no insect that troubles them; neither frost nor wind affects them; nothing molests them but mischievous boys, who love the flowers, but will take no pains to raise them themselves.—*Maine Farmer.*

REMARKS.—Those who do not like to wade into the water to plant the roots, may tie a stone to each root, and from a boat drop it where they would like to see a lily show its face.

AN ENGLISH PRIZE FARM.—The Royal Agricultural Society of England annually awards prizes for the best conducted farm. Last year the first prize went to a lady. This year twenty-three farms were entered. Four prizes were awarded. The first was £100; the second £50; the third and fourth, or rather two of equal merit, £25 each. One of these last was awarded to a lady.

The first prize was awarded a tenant farmer holding about 400 acres, of which something less than 300 are ploughed. The rotation is what is called the Norfolk or four course rotation, of wheat, turnips, barley and clover. Each year he has 70 or 75 acres each of wheat and barley, the first yielding 32 to 36, and the second 44 to 50 bushels per acre. He keeps 25 to 30 Hereford cows with their produce up to two and a half or three years old; 150 to 160 Shropshire ewes with lambs and yearlings, sold when 15 months old. Pigs are not bred, but a considerable number are fed on the farm each year. The land is considered second rate land, and the management is spoken of as "clean and business like."—*Western Farmer.*

TO HARDEN THE NECKS OF TEAMS.—When a harness or yoke of bows do not fit properly, and the skin is liable to be galled, bathe those parts before they are galled, with cold water until the outside skin appears quite soft, and then bathe those parts with a strong decoction of white oak bark. Let this be done every day, and the skin will become much harder and tougher than it usually is. A little care in preventing an ill, is far better than much labor and skill in curing it, or in endeavoring to obviate its injurious effects.—*Working Farmer.*

From the Atlantic Monthly, for October.

MY BIRTHDAY.

JOHN G. WHITTIER.

Beneath the moonlight and the snow
Lies dead my latest year;
The winter winds are wailing low
Its dirges in my ear.

I grieve not with the moaning wind
As if a loss befell;
Before me, even as behind,
God is, and all is well!

His light shines on me from above,
His low voice speaks within,—
The patience of immortal love
Outwearying mortal sin.

Not mindless of the growing years
Of care and loss and pain,
My eyes are wet with thankful tears
For blessings which remain.

If dim the gold of life has grown,
I will not count it dross,
Nor turn from treasures still my own
To sigh for lack and loss.

The years no charm from Nature take;
As sweet her voices call,
As beautiful her mornings break,
As fair her evenings fall.

Love watches o'er my quiet ways
Kind voices speak my name,
And lips that find it hard to praise
Are slow, at least to blame.

How softly ebb the tides of will!
How fields, once lost or won,
Now lie behind me green and still
Beneath a level sun!

How hushed the hiss of party hate,
The clamor of the throng!
How old, harsh voices of debate
Flow into rythmic song!

Methinks the spirit's temper grows
Too soft in this still air.
Somewhat the restful heart foregoes
Of needed watch and prayer.

The barque by tempest vainly tossed
May founder in the calm,
And he who braved the polar frost
Faint by the isles of balm.

Better than self-indulgent years
The outflung heart of youth,
Than pleasant songs in idle ears
The tumult of the truth.

Rest for the weary hands is good,
And love for hearts that pine,
But let the manly habitude
Of upright souls be mine.

Let winds that blow from heaven refresh,
Dear Lord, the languid air;
And let the weakness of the flesh
Thy strength of spirit share.

And, if the eye must fail of light,
The ear forget to hear,
Make clearer still the spirit's sight,
More fine the inward ear.

Be near me in my hours of need
To soothe, or cheer, or warn,
And down these slopes of sunset lead
As up the hills of morn!

AMBER.

A very large proportion of the amber appearing in the various markets of the world is supplied by the province of Prussia, including the neighboring district of Memel. The following particulars are gleaned from a report by Mr. Ward, Her Majesty's Vice-Consul at Memel.

In the western portion of the province of Prussia amber is found not only on the sea shore, but also in the mountainous ranges of the interior; excepting, however, in rare cases, of its appearance in so-called "nests," amber is only to be met with in isolated places in the latter localities, so that the profit arising from the amber diggings among the hills is but a very moderate one, and may be estimated at about double the amount paid by the proprietors for the wages of the diggers. In East Prussia, however, and especially in that part called the Samland, amber is more abundant, and during the prevalence of certain winds is frequently thrown upon the shore by the sea in large quantities; it is collected there, as well as fished for in the surf; it is also dug out of the sand-hillocks running along the sea coast. In these sand-hillocks regular beds of amber are found enclosed in a soil of blue clay, which is to be met with at an average depth of about 100 feet in a thickness of twenty-five to thirty feet. It is stated that out of some diggings established in those parts 4,500 pounds of amber were raised in the course of four months of the year 1869. Diggings of this kind exist at present in various spots of Samland. There are establishments at Brusterort, where amber is obtained by divers from the bottom of the sea, and at Schwarzort, near Memel, where it is raised by dredging for it at the bottom of the Curish Haff; the importance and size of the dredging establishment last mentioned has of late years increased considerably, and at present about 80,000 pounds of amber are annually obtained by it.

The total amount of amber obtained during the year 1869 in all parts of the province of Prussia by the various means of collection is estimated at about 150,000 pounds, the value of which may be taken at 550,000 Prussian dollars. The quantity collected (by fishing for it) in the sea and upon the shore is about equal to that raised by the digging and dredging works. Accordingly to the opinion of competent persons, the produce of the diggings could be increased considerably by working them upon a regular mining system.

Apart from the fact that no certain knowledge has hitherto been arrived at as to the actual extent of the amber fields in the blue clay,—and these fields exist most probably not only in the vicinity of the sea-coast, but also in the interior of the Samland, and even beyond that district and the frontiers of Eastern Prussia,—it is most likely that below the stratum of clay to which the diggings are at present confined there are other strata in which amber would be met with. This supposition is based upon the circumstance that considerable quantities of amber have been found among the soil washed away by the sea during heavy gales from those portions of the coastal sand-hills which lie below the layer of blue clay first alluded to.

The prices of the principal kinds of amber, as stated by an official report, vary according to the size, ranging from twenty-two Prussian dollars per pound, where the pieces run about nine to the pound, to four dollars, where the pound requires 100 or more. The prices of larger (so-called cabinet) pieces are subject to great fluctuations, and are fixed by the increase or decrease of demand from the East; the prices of the commoner kinds seldom vary more than about ten per cent. The chief seat of the retail amber trade is Dantzic; the wholesale trade is at present in the hands of only two or three firms in the province of Prussia.

The working of the Prussian amber into mouth-pieces, beads, &c., is likewise carried on chiefly at Dantzic, but also in all large cities; of late a manufactory of amber wares, has been established at Polangen, a small Russian town near Memel, and it is intended to open similar works at Konigsberg, Moscow and at New York.

Scouring in Stock.—Among the many remedies given for scouring in stock, I find none so good as strong coffee. We have saved the lives of colts, cows, calves, and pigs. Make the coffee strong, and if they cannot be induced to drink, pour it through a funnel or from a bottle; but don't pull out the animal's tongue, as is recommended by some, because it is most sure to get into the windpipe. We saved a valuable cow by giving ground coffee in some bran, salted to suit the taste. We once bought a pair of Chester White pigs, and at six weeks old one of them commenced scouring. All remedies failed to check it. We gave it a few spoonfuls of strong coffee, which effected a cure.—*Rural New Yorker.*

Pear Tree Blight.—At a late meeting of the Western New York Farmers' Club at Rochester, Mr. Quinby said he had noticed that the pear blight was more prevalent this year than common. It generally commences on the extremities of the limbs, and is easily headed by cutting off the limb below the diseased part. If neglected, the disease works down the limb to the body and soon destroys the tree. He had noticed that a small, diseased limb lying across a healthy one would impart the disease. Fruit growers who permitted the blight to ravage their trees were very much to blame, when it could so easily be cured. Some varieties of pears were very knotty this year.

Ladies' Department.

THE BASHFUL LOVER.

Ah, well! John came to-night and stood
For full an hour beside the bars;
And we two watched between the trees
The glimmer of the moon and stars.
John acted very strange, I think—
I wish I knew the reason why;
I really thought he meant to say
Something, to-night, besides good-bye.

John's coming here quite often now;
I'm sure I don't know why he should—
Although my sister Mary says
It's talked about the neighborhood
That he is making love to me—
The strangest thing I ever heard;
For if it's true, how queer it is
That John has never said a word.

Ah, well! I shouldn't care so much
If John himself had told me so;
For then he might have said it all
Upon his own account, you know.
But he's so bashful, I believe
He'd never dare to speak out plain,
I hope he'll muster courage up,
And try it, when he comes again.

It cannot be that I'm to blame—
I'm sure I've helped him all I could;
I've always met him at the bars
And talked as any woman would
That had a lover whom she liked,
And waited with her heart aglow
For him to break the subject first,
And then how quick she'd let him know!

But John, he keeps a coming still,
Just as he has for twelve months past;
I've thought sometimes it looked as though
I'd have to speak myself, at last.
I'm bound that he shall know the truth,
And now, resolved, I cannot wait
For him to find it out himself;
And so, next time, I'll try my fate.

YOUTH, LOVE AND HOPE.

They were now also part of the great circle of newly wedded bliss, which, involving the whole land during the season of bridal-tours, may be said to show richest and fairest at Niagara, like the costly jewel of a precious ring. The place is, in fact, almost abandoned to bridal couples, and any one out of his honeymoon is in some degree an alien there, and must discern a certain immodesty in his intrusion. Is it for his profane eyes to look upon all that blushing and trembling joy? A man of any sensibility must desire to veil his face, and, bowing his excuses to the collective rapture, take the first train for the wicked outside world to which he belongs. Everywhere he sees brides and brides. Three or four, with the benediction still upon them, come down in the same car with him; he hands her travelling shawl after one as she springs from the omnibus into her husband's arms; there are two or three walking back and forth with their new lords upon the porch of the hotel; at supper they are on every side of him, and he feels himself suffused, as it were, by a roseate atmosphere of youth, and love, and hope. At breakfast it is the same, and then, in all his wanderings about the place, he encounters them. They are of all manners of beauty, fair and dark, slender and plump, tall and short; but they are all beautiful with the radiance of loving and being loved. Now, if ever in their lives, they are charmingly dressed, and ravishing toilets take the willing eye from the objects of interest. How high the heels of the pretty boots; how small the tender-tinted gloves; how electrical the flutter of the snowy skirts! What is Niagara to these things? * * * *

The place perpetually renews itself in the glow of love as long as the summer lasts. The moon which is elsewhere so often of wormwood, or of the ordinary green cheese at the best, is of lucent honey there from the first of June to the last of October; and this is a great charm in Niagara. I think with tenderness of all the lives that have opened so fairly there; the hopes that have reigned in the glad young hearts; the measureless tide of joy that ebbs and flows with the arriving and departing trains. Elsewhere there are carking cares of business and of fashion, there are age, and sorrow, and heartbreak; but here only youth, faith, rapture. I kiss my hand to Niagara for that reason, and would I were a poet for quarter of an hour.—*W. D. Howells, in the Atlantic Monthly for October.*

TOWEL COSTUMES.

The great novelty in travelling-dresses are the Baden-Baden towel costumes, that are literally made of the rough brown bath toweling, which we know better as Turkish. One of these suits was made in the form of a polonaise, body and skirt in one, very bouffante at the back, the sleeves rather of a large coat-sleeve form, trimmed round and down the front, round the neck and skirt, with four or five cross-cut bands of chocolate-colored cambric, the petticoat being of the same cambric, made with a succession of flounces; and, strange as it may seem, there was nothing at all *outre* in the appearance, but it was rather warm and heavy. Various other species of towelling are now converted into polonaises, and worn over bright-colored petticoats. That useful material, chambertin, a kind of canvas cloth of a dark-brown holland color, is very much sold for travelling dresses for immediate wear, where no warmth is required. Among the prettiest style or make is the following: A skirt long enough to touch the ground, with a straight-cut flounce from the knee put on in box plaits; at the edge of this a narrow cross-cut flounce, edged with white lace; the tunic trimmed with white narrow lace, and made to tie up the back, which is so easy for packing; a semi-tight-fitting jacket, the basques cut up in tabs, edged round with crossway tucks of the material laid on with piping, and edged top and bottom with lace. Brown hollands are always useful for travel-

ing; they are made just now mostly with flat crossway tucks, and piped at the top, and are very easily washed and packed. Nearly all the jackets of such costumes are semi-tight-fitting. I have also seen several made with flounces to the waist, and over this a loose jacket, the basques cut in square tabs, and a ruching of the holland all round, edged both sides with lace. Still the polonaise is the fashion of the year; and whether for traveling dresses or anything else, is most worn. Serges, for Scotland and anywhere where warmth is required, are still much in request, especially black. I have seen several trimmed with bands of the same, piped with red, and worn over a red petticoat; other black ones are trimmed with very broad black Russian braid and fringe. One of the old shade of naval blue I saw trimmed round the skirt and tunic with four rows of inch-wide braid, with loops of the same close together under the bottom and above the top row; an inexpensive and very effective style. Most of the jackets are made loose, and the bodies under them so arranged that they can be worn with with or without them as they may be required. Poplin costumes for travelling are most fashionable; so are the woolen poplins, and nearly all these are trimmed with crossway folds piped at the top. The shades in woolen poplins are very pretty, particularly the grays, and slate colors, and buffs. Mohairs are very much improved this season, especially what are called the lustre mohairs, which are very bright, and wear better than anything. Pretty costumes of narrow-striped black and white mohairs can be easily made by people having sewing-machines, as most of them are trimmed with black woolen poplin, stitched on in crossway bands. Twilled mohairs and bareges, (a new, thick, useful woolen material,) in two shades of brown, and black and gray, are stylish and useful.—*Queen.*

THE FALSE EDUCATION OF OUR DAUGHTERS.

The English nobleman who sends to Paris for his daughter's dresses is reasonably certain that he, and his daughter's husband after him, can continue sending, and that in the training of his child he is fostering no habit which cannot be rightfully indulged in. The American knows, if he knows anything, that the habits of luxury in which his child is reared unfit her for the duties of the life to which she will in all likelihood be called—that he cannot hope that his family wealth can long survive him, any more than that his daughter will love a man to whom that wealth will be unimportant. Experience and observation alike tell him that wealth in this country rarely continues in a family three generations, and that at any time he may find himself a poor man again. Yet he regulates his life and that of his children as if his wealth and theirs were assured forever, and as though the habits of a lifetime were to be broken like wisps of straw. His daughters are not fit to marry any but the rich men they experience so much difficulty in finding, and a man of moderate means is careful to avoid asking them to change their habits of life. There are few sadder pictures than the one we see when some such woman of braver heart than most of her sex chooses the portion of a poor man's love and vainly seeks to adapt herself to a life of which she has hitherto known nothing. The habits of her girlhood bind her like strong fetters, her ignorance of domestic duties weighs her to the earth, the loss of social position or the fevered efforts she makes to support it wear out her life in bitter repinings, until her health gives way and she dies, leaving her faults to vex the world in her children, and her virtues undiscovered save by the husband, who hides from himself all else of her memory.—*Lippincott's Magazine for October.*

Irish Poplin.—Beyond doubt there are few materials so thoroughly becoming to a woman as Irish poplin. It falls in soft massive folds, and has no disagreeable rustle; but rather that soft *frou-frou* about which the French novelist goes into raptures when he describes the gracious movements of his heroine. The brilliant colors are varied and numerous as the tints on a painter's palette, and afford a choice of hues so extended that every complexion may find its most becoming color. There are tender Spring-like greens for the too florid cheek of the matron, turquoise blue for the rose bloom of girlhood, delicious French grays and pearly shades of every degree for the bride of mature years, or the young bride's mother, and a sliding scale of the rubies, amethysts, and maroons which are just now so fashionable; while for those who desire to exhibit their loyalty or nationality, there are tartans of every clan. Of the economy of the fabric it is almost needless to speak. It is alike on both sides, has none of that "up and down" about which dressmakers complain when making up figured silks, and will look bright to the last hour of its wear. For the interests of the manufacturer, Irish Poplins wear too well; they outlast every other material used for ladies' dresses, and are a real boon to the economic. —*Belgravia.*